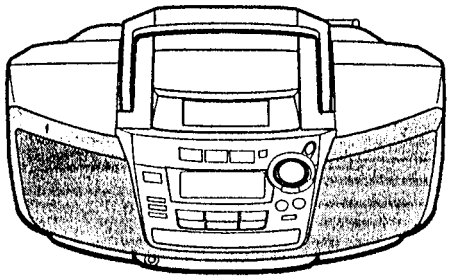
aiwa SERVICE

CSD-EL33 U HA



SERVICE MANUAL

COMPACT DISC STEREO
CASSETTE RECORDER

BASIC TAPE MECHANISM : 2ZM-1 YR7NC
BASIC CD MECHANISM : 3ZG-3 E2NC

aiwa

S/M Code No. 09-995-330-1N1

DATA

SPECIFICATIONS

<Tuner section>

(FM)

Tuning range	87.5 MHz to 108.0 MHz
Antenna	Rod antenna

(AM)

Tuning range	530 kHz to 1710 kHz (10 kHz step) 531 kHz to 1602 kHz (9 kHz step)
Antenna	Ferrite bar antenna

<Cassette deck section>

Track format	4 track, 2 channels stereo
Frequency response	Normal tape: 50 Hz - 12500 Hz
Recording system	AC bias
Erasing system	Magnet erase
Heads	Recording/Playback head x 1 Erasure head x 1

<Compact disc player section>

Laser	Semiconductor (λ = 780 nm)
D-A converter	1 bit dual

<General>

Speakers	100 mm cone type (2)
Power output	2.5 W + 2.5 W (10% T.H.D./7Ω DC) 2 W + 2 W (DIN 1% Rated Power)
Output	Headphones (stereo minijack)
Power requirements	DC 12 V using eight size C (R14) batteries <U Model> 120 V AC, 60 Hz <HA Model> 110 - 120 V/ 220 - 240 V AC Switchable, 50/60 Hz
Power consumption	18 W
Dimensions of main unit	(W x H x D) 445 x 168 x 237 mm (17 $^5/_8$ x 6 $^5/_8$ x 9 $^3/_8$ in.)
Weight of main unit	4.1 kg (9 lb 1 oz.) not including batteries

• Design and specifications are subject to change without notice.

ACCESSORIES LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

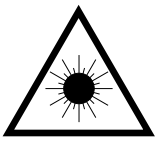
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-CH2-906-010		IB,LH(ESP)FM<HA>
1	8Z-CH2-905-010		IB,U(ESF)FM<U>
2	8Z-CK4-962-010		RC UNIT,RC-ZAT04 (VS)
⚠ 3	87-A80-119-010		AC CORD SET ASSY,AZ<HA>
⚠ 3	87-A80-027-010		AC CORD SET,U BLK SPT2<U>

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynling laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

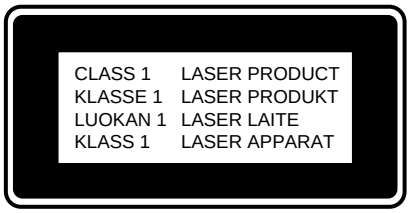
ATTENTION

L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

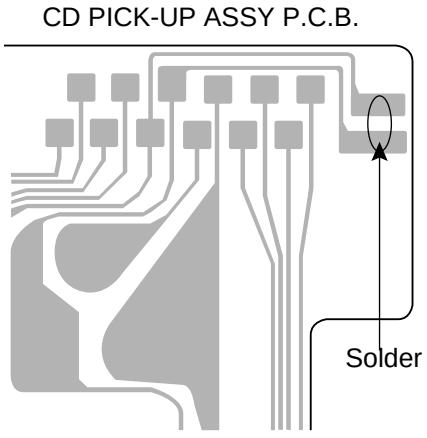


Precaution to replace Optical block

(KSS – 213B)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in the right figure.



ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

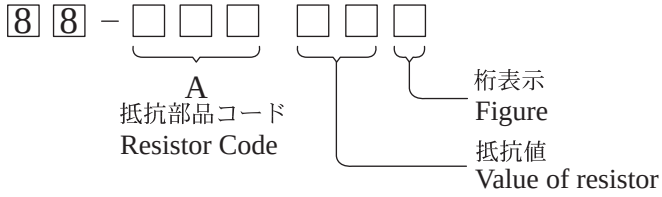
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-A20-459-010		C-IC,LC78622ED
	8Z-CH1-622-010		IC,LC867132V-5G68
	87-A21-184-010		IC,TA2104AN
	87-A21-185-040		C-IC,LC72121M
	87-001-982-010		IC,TA7291S
	87-A21-103-040		C-IC,MM1454XFBE
	87-A20-715-010		IC,M62439SP
	87-A20-591-010		IC,BA5417
	87-017-889-010		IC,NJM4558LD
	87-017-804-010		IC,BU4052BC
	87-070-282-010		IC,BU2092
	87-A20-446-010		C-IC,LA9241ML
	87-A21-093-010		IC,LA6541D
	87-070-416-010		IC,NJU7201 L55
	87-A20-911-010		IC,RPM6938
	87-020-454-010		IC,DN6851
TRANSISTOR			
	87-026-291-080		TR,DTC124XS
	89-213-702-080		TR,2SB1370E
	89-319-233-080		TR,2SC1923 (0.1W)
	87-026-447-080		TR,2SC1740S R
	89-320-011-080		TR,2SC2001K(15W)
	87-026-215-080		TR,DTC114YS
	89-318-155-080		TR,2SC1815GR(0.4W)
	87-A30-090-080		FET,2SK2541
	87-A30-151-080		TR,2SA1993
	87-026-610-080		TR,KTC3198GR
	87-A30-154-080		TR,RT1N441S
	87-026-463-080		TR,2SA933SRS(0.3W)
	89-113-187-080		TR,2SA1318TU
	87-026-464-080		TR,DTC114TS
	87-026-486-080		TR,DTA144TS
	87-026-502-080		TR,DTC144TS
	87-026-245-080		TR,DTC114ES
	89-109-521-080		TR,2SA952K(0.6W)
	89-112-965-080		TR,2SA1296GR(0.75W)
DIODE			
	87-017-072-080		ZENER,HZS3B1
	87-A40-292-080		ZENER,DZ2.7L
	87-017-139-080		ZENER,HZS15-2
	87-070-345-080		DIODE,IN4148
	87-027-606-080		ZENER,HZ7C2L(200MA)
	87-017-148-080		ZENER,HZS6A1L
	87-017-159-080		ZENER,HZS7B3L
	87-A40-465-010		DIODE,FR202
MAIN C.B			
C101	87-A10-182-010		CAP,CER 0.01-50 Z F
C102	87-010-112-080		CAP, ELECT 100-16V
C205	87-010-401-080		CAP, ELECT 1-50V
C206	87-010-401-080		CAP, ELECT 1-50V
C211	87-010-405-080		CAP, ELECT 10-50V
C212	87-010-405-080		CAP, ELECT 10-50V
C219	87-010-375-010		CAP,E 330-10 SME
C221	87-010-263-080		CAP, ELECT 100-10V
C222	87-010-405-010		CAP 50-10SME
C223	87-010-405-010		CAP 50-10SME
C224	87-010-380-080		CAP, ELECT 47-16V
C232	87-A10-170-010		CAP,CER 330P-50 K B
C233	87-010-382-080		CAP, ELECT 22-25V
C235	87-A10-175-010		CAP,CER 820P-50 K B
C236	87-A10-175-010		CAP,CER 820P-50 K B
C237	87-010-401-080		CAP, ELECT 1-50V
C238	87-010-401-080		CAP, ELECT 1-50V
C251	87-010-400-080		CAP, ELECT 0.47-50V
C252	87-010-400-080		CAP, ELECT 0.47-50V
C255	87-010-546-080		CAP, ELECT 0.33-50V
C256	87-010-546-080		CAP, ELECT 0.33-50V
C257	87-010-544-080		CAP, ELECT 0.1-50V
C258	87-010-544-080		CAP, ELECT 0.1-50V
C261	87-010-263-080		CAP, ELECT 100-10V
C262	87-010-408-080		CAP, ELECT 47-50V
C269	87-010-402-080		CAP, ELECT 2.2-50V
C270	87-010-402-080		CAP, ELECT 2.2-50V
C271	87-010-401-080		CAP, ELECT 1-50V
C272	87-010-401-080		CAP, ELECT 1-50V
C275	87-010-382-080		CAP, ELECT 22-25V
C276	87-010-382-080		CAP, ELECT 22-25V
C277	87-010-260-080		CAP, ELECT 47-25V
C278	87-010-384-080		CAP, ELECT 100-25V
C279	87-010-235-080		CAP,E 470-16 SME
C281	87-010-380-080		CAP, ELECT 47-16V
C282	87-010-380-080		CAP, ELECT 47-16V
C283	87-010-236-080		CAP,E 1000-10 SME
C284	87-010-236-080		CAP,E 1000-10 SME
C287	87-018-125-080		CAP, CER 330P-50V
C288	87-018-125-080		CAP, CER 330P-50V
C291	87-010-401-080		CAP, ELECT 1-50V
C292	87-018-119-080		CAP, CER 100P-50V
C305	87-010-263-080		CAP, ELECT 100-10V
C306	87-010-263-080		CAP, ELECT 100-10V
C311	87-010-546-080		CAP, ELECT 0.33-50V
C312	87-010-546-080		CAP, ELECT 0.33-50V
C323	87-A10-170-010		CAP,CER 330P-50 K B
C324	87-A10-170-010		CAP,CER 330P-50 K B
C331	87-A10-171-010		CAP,CER 390P-50 K B
C332	87-A10-171-010		CAP,CER 390P-50 K B
C333	87-A10-173-010		CAP,CER 560P-50 K B
C340	87-010-382-080		CAP, ELECT 22-25V
C347	87-010-374-080		CAP, ELECT 47-10V
C363	87-010-405-080		CAP, ELECT 10-50V
C364	87-010-405-080		CAP, ELECT 10-50V
C369	87-A10-163-010		CAP,CER 82P-50 K SL
C370	87-A10-163-010		CAP,CER 82P-50 K SL
C373	87-010-401-080		CAP, ELECT 1-50V
C374	87-010-401-080		CAP, ELECT 1-50V
C382	87-010-401-080		CAP, ELECT 1-50V
C383	87-010-248-080		CAP, ELECT 220-10V
C384	87-010-374-080		CAP, ELECT 47-10V
C401	87-010-403-080		CAP, ELECT 3.3-50V
C402	87-018-134-080		CAPACITOR,TC-U 0.01-16
C403	87-010-263-080		CAP, ELECT 100-10V
C404	87-010-248-080		CAP, ELECT 220-10V
C405	87-018-134-080		CAPACITOR,TC-U 0.01-16
C406	87-010-374-080		CAP, ELECT 47-10V
C409	87-010-248-080		CAP, ELECT 220-10V
C410	87-010-263-080		CAP, ELECT 100-10V
C412	87-010-401-080		CAP, ELECT 1-50V
C414	87-010-405-080		CAP, ELECT 10-50V
C416	87-010-545-080		CAP, ELECT 0.22-50V
C417	87-018-125-080		CAP, CER 330P-50V
C425	87-018-129-080		CAP, CER 680P-50V
C430	87-018-123-080		CAP, CER 220P-50V
C431	87-010-545-080		CAP, ELECT 0.22-50V
C432	87-010-374-080		CAP, ELECT 47-10V
C433	87-010-401-080		CAP, ELECT 1-50V
C435	87-018-134-080		CAPACITOR,TC-U 0.01-16
C436	87-010-374-080		CAP, ELECT 47-10V
C437	87-010-404-080		CAP, ELECT 4.7-50V
C438	87-018-209-080		CAP, CER 0.1-50V
C440	87-018-139-080		CAP,TC U 1P-50 CH
C442	87-018-149-080		CAP,TC U 15P-50 J CH
C445	87-018-209-080		CAP, CER 0.1-50V

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C446	87-018-209-080		CAP, CER 0.1-50V
C447	87-018-209-080		CAP, CER 0.1-50V
C448	87-018-111-080		CAP, CERA-SOL SS 27P
C450	87-018-127-080		CAP, CER 470P-50V
C451	87-018-123-080		CAP, CER 220P-50V
C452	87-018-127-080		CAP, CER 470P-50V
C453	87-018-119-080		CAP, CER 100P-50V
C454	87-018-120-080		CAP, CERA-SOL SS 120P
C455	87-010-263-080		CAP, ELECT 100-10V
C457	87-018-113-080		CAP, CER 33P-50V
C458	87-018-113-080		CAP, CER 33P-50V
C459	87-010-263-080		CAP, ELECT 100-10V
C460	87-018-209-080		CAP, CER 0.1-50V
C461	87-018-209-080		CAP, CER 0.1-50V
C462	87-010-248-080		CAP, ELECT 220-10V
C463	87-018-134-080		CAPACITOR,TC-U 0.01-16<HA>
C465	87-010-404-080		CAP, ELECT 4.7-50V
C466	87-018-209-080		CAP, CER 0.1-50V
C467	87-010-263-080		CAP, ELECT 100-10V
C469	87-018-121-080		CAP, CER 150P-50V
C470	87-010-544-080		CAP, ELECT 0.1-50V
C475	87-018-134-080		CAPACITOR,TC-U 0.01-16
C476	87-010-236-080		CAP,E 1000-10 SME
C477	87-018-134-080		CAPACITOR,TC-U 0.01-16
C478	87-010-263-080		CAP, ELECT 100-10V
C479	87-018-134-080		CAPACITOR,TC-U 0.01-16
C480	87-010-221-080		CAP, ELECT 470-10V
C481	87-010-405-080		CAP, ELECT 10-50V
C482	87-010-405-080		CAP, ELECT 10-50V
C483	87-018-123-080		CAP, CER 220P-50V
C484	87-018-123-080		CAP, CER 220P-50V
C487	87-018-134-080		CAPACITOR,TC-U 0.01-16
C489	87-018-209-080		CAP, CER 0.1-50V
C490	87-018-209-080		CAP, CER 0.1-50V
C491	87-A10-182-010		CAP,CER 0.01-50 Z F
C492	87-010-221-080		CAP, ELECT 470-10V
C493	87-018-119-080		CAP, CER 100P-50V
C494	87-A10-182-010		CAP,CER 0.01-50 Z F
C500	87-018-134-080		CAPACITOR,TC-U 0.01-16
C501	87-018-119-080		CAP, CER 100P-50V
C502	87-018-119-080		CAP, CER 100P-50V
C503	87-018-119-080		CAP, CER 100P-50V
C504	87-018-119-080		CAP, CER 100P-50V
C505	87-018-119-080		CAP, CER 100P-50V
C506	87-018-119-080		CAP, CER 100P-50V
C510	87-018-209-080		CAP, CER 0.1-50V
C511	87-010-263-080		CAP, ELECT 100-10V
C512	87-010-385-080		CAP, ELECT 220-25V
C514	87-010-248-080		CAP, ELECT 220-10V
C520	87-010-384-080		CAP, ELECT 100-25V
C521	87-010-453-010		CAP, ELECT 4700-25V
C526	87-010-404-080		CAP, ELECT 4.7-50V
C527	87-010-401-080		CAP, ELECT 1-50V
C528	87-010-221-080		CAP, ELECT 470-10V
C529	87-010-263-080		CAP, ELECT 100-10V
C530	87-010-248-080		CAP, ELECT 220-10V
C536	87-010-386-080		CAP,E330-25 SME
C537	87-018-134-080		CAPACITOR,TC-U 0.01-16
C542	87-010-221-080		CAP, ELECT 470-10V
C543	87-010-401-080		CAP, ELECT 1-50V
CN103	87-A60-062-010		CONN,05P V 9604S-05C
CN201	87-009-883-010		CONN,10P TKC-T H(F)
CN202	87-009-883-010		CONN,10P TKC-T H(F)
CN203	87-A60-457-010		CONN,4P V TID-X
CN301	87-A60-112-010		CONN,7P V S2M-7W
CN401	87-A60-424-010		CONN,16P V TOC-B
CN501	87-099-827-010		CONN,3P S2M-3W
CNA402	8Z-CT6-631-010		CONN ASSY,6P CD MO
FFC1	88-CD5-638-010		FF-CABLE, 16P 1.0 220MM
FFC2	88-906-181-110		FF-CABLE,6P 1.25
FFC3	88-905-141-110		FF-CABLE, 5P 1.25
J201	87-009-216-010		JACK, DIA 3.5
L301	87-003-102-080		COIL, 10UH
L331	87-007-342-010		COIL,OSC 85K BIAS
L401	87-003-102-080		COIL, 10UH
L404	87-003-152-080		COIL, 100UH
L405	87-003-152-080		COIL, 100UH
L406	81-NWB-655-010		COIL,10UH TROIDAL
L407	81-NWB-655-010		COIL,10UH TROIDAL
L412	81-NWB-655-010		COIL,10UH TROIDAL
L501	81-NWB-655-010		COIL,10UH TROIDAL
⚠R561	87-029-174-090		FUSING RES,1-1/4W<U>
SFR430	87-024-176-010		SFR,100K DIA6 V
X401	81-592-641-010		VIB,CER 16.93MHZ
FRONT C.B			
C601	87-010-263-080		CAP, ELECT 100-10V
C602	87-A10-182-010		CAP,CER 0.01-50 Z F
C603	87-015-696-080		CAP,E 2.2-50 7L
C604	87-010-754-080		CAP,E220-10 SRA 7L<U>
C604	87-A10-373-080		CAP,E220-6.3 M SSL<HA>
C605	87-018-209-080		CAP, CER 0.1-50V
C606	87-015-696-080		CAP,E 2.2-50 7L
C607	87-015-694-080		CAP,E 0.47-50 7L
C608	87-018-209-080		CAP, CER 0.1-50V
C609	87-A10-139-010		CAP,CER 18P-50 K CH
C610	87-A10-140-010		CAP,CER 22P-50 K CH
C611	87-018-114-080		CAP, CERA-SOL SS 39P
C612	87-018-114-080		CAP, CERA-SOL SS 39P
C613	87-A10-138-010		CAP,CER 15P-50 K CH
C614	87-A10-373-080		CAP,E 220-6.3 M SSL
C616	87-018-119-080		CAP, CER 100P-50V
C617	87-018-119-080		CAP, CER 100P-50V
C618	87-A10-182-010		CAP,CER 0.01-50 Z F
C619	87-A10-182-010		CAP,CER 0.01-50 Z F
C621	87-015-699-080		CAP,E 10-50 7L
C622	87-A10-166-010		CAP,CER 150P-50 K B
C623	87-A10-166-010		CAP,CER 150P-50 K B
C625	87-018-119-080		CAP, CER 100P-50V
C626	87-A10-182-010		CAP,CER 0.01-50 Z F
C627	87-018-209-080		CAP, CER 0.1-50V
C628	87-015-677-080		CAP,E 100-6.3 7L
C629	87-A10-160-010		CAP,CER 47P-50 K SL
C631	87-018-119-080		CAP, CER 100P-50V
C632	87-A10-160-010		CAP,CER 47P-50 K SL
C633	87-018-119-080		CAP, CER 100P-50V
C634	87-015-677-080		CAP,E 100-6.3 7L
C635	87-A10-182-010		CAP,CER 0.01-50 Z F
CN601	87-009-880-010		CONN,10P TKC-T H(M)
CN602	87-009-880-010		CONN,10P TKC-T H(M)
CNA601	8Z-CH2-910-010		CONN ASSY,6P V WHT
CNA602	88-802-091-220		CONN ASSY,9P RED
D601	87-A40-162-010		LED,L-1154SRD
L601	81-NWB-655-010		COIL,10UH TROIDAL
LCD601	8Z-CH1-623-010		LCD,ZCH-2
⚠R668	87-029-124-010		RES,FUSE 2.2-1/4
S601	87-A90-095-080		SW,TACT EVQ11G04M
S602	87-A90-095-080		SW,TACT EVQ11G04M
S603	87-A90-095-080		SW,TACT EVQ11G04M
S604	87-A90-095-080		SW,TACT EVQ11G04M
S605	87-A90-095-080		SW,TACT EVQ11G04M
S606	87-A90-095-080		SW,TACT EVQ11G04M
S607	87-A90-095-080		SW,TACT EVQ11G04M
S608	87-A90-095-080		SW,TACT EVQ11G04M
S609	87-A90-095-080		SW,TACT EVQ11G04M
S610	87-A90-095-080		SW,TACT EVQ11G04M
S611	87-A90-095-080		SW,TACT EVQ11G04M
S612	87-A90-095-080		SW,TACT EVQ11G04M
S613	87-A90-095-080		SW,TACT EVQ11G04M

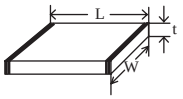
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
S614	87-A90-095-080		SW,TACT EVQ11G04M
S615	87-A90-095-080		SW,TACT EVQ11G04M
S616	87-A90-095-080		SW,TACT EVQ11G04M
S617	87-A90-095-080		SW,TACT EVQ11G04M
S618	87-A90-095-080		SW,TACT EVQ11G04M
S619	87-A90-095-080		SW,TACT EVQ11G04M
S620	87-A90-095-080		SW,TACT EVQ11G04M
S621	87-A90-798-010		SW,RTRY 1-2-24 EVQVENF0124B
X601	87-030-273-010		VIB,XTAL 32.768K5PPM
X602	87-A70-070-080		VIB,CER 5.76MHZ CRHF
LED C.B			
D651	87-A40-161-010		LED,L-1154SGD
D652	87-A40-161-010		LED,L-1154SGD
D653	87-A40-161-010		LED,L-1154SGD
D654	87-A40-161-010		LED,L-1154SGD
D655	87-A40-161-010		LED,L-1154SGD
D656	87-A40-161-010		LED,L-1154SGD
D657	87-A40-161-010		LED,L-1154SGD
D658	87-A40-161-010		LED,L-1154SGD
D659	87-A40-161-010		LED,L-1154SGD
D660	87-A40-161-010		LED,L-1154SGD
TUNER C.B			
C1	87-010-314-080		C-CAP,S 22P-50V
C2	87-010-315-080		C-CAP,S 27P-50 CH
C3	87-010-314-080		C-CAP,S 22P-50V
C5	87-010-196-080		CHIP CAPACITOR,0.1-25
C6	87-010-312-080		C-CAP,S 15P-50 CH
C7	87-014-049-080		CAP,PP 470P-100 J
C8	87-012-349-080		C-CAP,S 1000P-50 CH
C10	87-010-197-080		CAP, CHIP 0.01 DM
C11	87-010-197-080		CAP, CHIP 0.01 DM
C12	87-010-197-080		CAP, CHIP 0.01 DM
C13	87-010-150-080		C-CAP,S 6P-50 CH
C14	87-010-303-080		C-CAP,S 330P-50CH
C15	87-012-349-080		C-CAP,S 1000P-50 CH
C16	87-010-380-080		CAP, ELECT 47-16V
C17	87-010-192-080		C-CAP,S 0.022-50 F
C18	87-015-819-080		CAPACITOR,0.01
C19	87-010-112-080		CAP, ELECT 100-16V
C20	87-010-404-080		CAP, ELECT 4.7-50V
C21	87-010-197-080		CAP, CHIP 0.01 DM
C22	87-010-197-080		CAP, CHIP 0.01 DM
C24	87-012-349-080		C-CAP,S 1000P-50 CH
C25	87-012-141-080		C-CAP,S 0.22-16 Z F C2012
C27	87-A10-484-080		C-CAP,S 1.0U-10 K B
C28	87-010-196-080		CHIP CAPACITOR,0.1-25
C29	87-010-196-080		CHIP CAPACITOR,0.1-25
C30	87-010-213-080		C-CAP,S 0.015-50 B<HA>
C30	87-010-198-080		C-CAP,S 0.022-25<U>
C31	87-010-213-080		C-CAP,S 0.015-50 B<HA>
C31	87-010-198-080		C-CAP,S 0.022-25<U>
C33	87-010-401-080		CAP, ELECT 1-50V
C34	87-010-401-080		CAP, ELECT 1-50V
C35	87-015-819-080		CAPACITOR,0.01
C36	87-010-112-080		CAP, ELECT 100-16V
C37	87-010-197-080		CAP, CHIP 0.01 DM
C38	87-010-380-080		CAP, ELECT 47-16V
C39	87-010-404-080		CAP, ELECT 4.7-50V
C40	87-010-197-080		CAP, CHIP 0.01 DM
C41	87-012-349-080		C-CAP,S 1000P-50 CH
C42	87-012-349-080		C-CAP,S 1000P-50 CH
C43	87-012-349-080		C-CAP,S 1000P-50 CH
C44	87-010-311-080		CAP 12P
C45	87-010-312-080		C-CAP,S 15P-50 CH
C46	87-010-197-080		CAP, CHIP 0.01 DM
C47	87-010-197-080		CAP, CHIP 0.01 DM
C48	87-010-197-080		CAP, CHIP 0.01 DM
C49	87-010-322-080		C-CAP,S 100P-50 CH
C50	87-010-197-080		CAP, CHIP 0.01 DM
C71	87-015-819-080		CAPACITOR,0.01
C72	87-010-196-080		CHIP CAPACITOR,0.1-25
C73	87-010-196-080		CHIP CAPACITOR,0.1-25
C91	87-A10-160-010		CAP,CER 47P-50 K SL
C92	87-A10-160-010		CAP,CER 47P-50 K SL
C927	87-010-316-080		C-CAP,S 33P-50 CH
C929	87-010-316-080		C-CAP,S 33P-50 CH
C930	87-010-316-080		C-CAP,S 33P-50 CH
CF1	87-A91-094-010		FLTR,CDA10.7 MG80A
CF2	82-785-747-080		CF,MS2 GHY,R
CF3	82-785-747-080		CF,MS2 GHY,R
CN11	87-A60-110-010		CONN,4P V S2M-4W
CN12	87-099-854-010		CONN,6P S2M-6W
D3	87-A40-616-080		VARI-CAP,SVC384(S/T)
D4	87-A40-615-040		VARI-CAP,KV1311NT
D5	87-A40-615-040		VARI-CAP,KV1311NT
L2	88-CD6-655-010		COIL,FM5MMÅñ3.5T
L3	87-A91-095-010		BAR-ANT,MW FOR 2B(SYN)
L4	87-A50-420-010		COIL,MW OSC(SYN)
L5	87-A50-424-010		COIL,FM RF EX(SYN)
L6	87-A50-427-010		COIL,FM OSC EX(SYN)
L7	87-A90-733-010		FLTR,PCFAZH-450 (TOK)
L8	87-005-849-080		COIL,10UH(CECS)
L9	87-005-849-080		COIL,10UH(CECS)
TC1	87-011-220-080		TRIMMER CAP 20P VTC
X1	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309
LOADING MOTOR C.B			
M1	87-045-305-010		MOTOR,RF-500TB DC-5V(2MA)
S1	87-036-110-019		PUSH SWITCH
S2	87-036-110-019		PUSH SWITCH
CD MOTOR C.B			
M2	87-045-358-019		MOT,RF-310TA 43
M3	87-045-356-019		MOT,RF-310T 30
S1	87-A90-042-010		SW,LEAF MSW 17310 MVPO
DECK C.B			
S2	87-A90-248-019		SW,MICRO ESE11SH2CXQ
S3	87-A90-248-019		SW,MICRO ESE11SH2CXQ
S5	87-A90-248-019		SW,MICRO ESE11SH2CXQ
S6	87-A90-248-019		SW,MICRO ESE11SH2CXQ
SFR1	87-024-581-019		SFR,3,3K DIA6V K0A
SOL2	82-ZM1-618-410		SOL ASSY,27
RELAY C.B			
CON301	88-CD5-635-010		CONN ASSY,7P RPH
POWER C.B			
⚠F701	87-035-488-010		FUSE,T3.15A 250V UL<U>
⚠F701	87-035-139-010		FUSE,2.5A T 250V<HA>
⚠FC701	87-A90-160-080		FUSE CLAMP,FC 51F
⚠FC702	87-A90-160-080		FUSE CLAMP,FC 51F
BATT C.B			

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

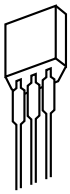
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード ：A Resistor Code：A
1/16W	1005	±5%	CJ		1.0	0.5	0.35	104
1/16W	1608	±5%	CJ		1.6	0.8	0.45	108
1/10W	2125	±5%	CJ		2	1.25	0.45	118
1/8W	3216	±5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION

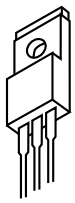


E C B

2SA933
2SA1993
2SC1740
DTA144TS
DTC114ES
DTC114TS
DTC114YS
DTC124XS
DTC144TS
RT1N441

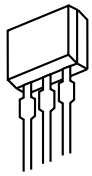
E C B

2SA952
2SA1296
2SA1318
2SC1815
2SC1923
2SC2001
KTC3198



B C E

2SB1370

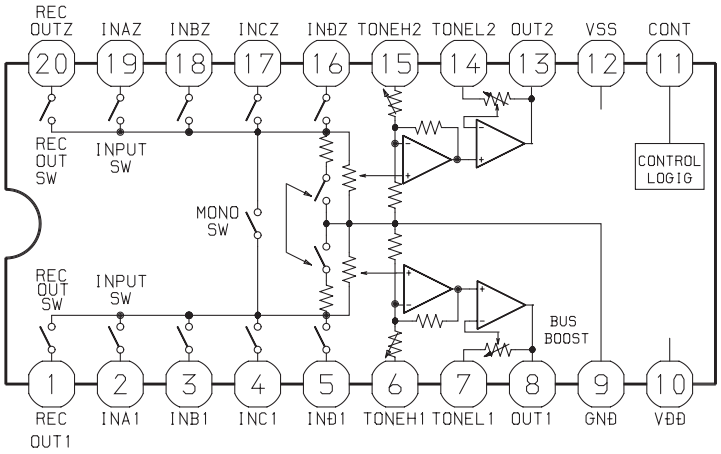


S D G

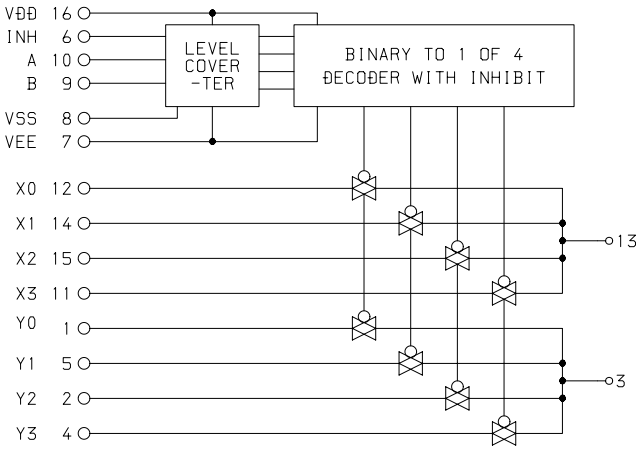
2SK2541

IC BLOCK DIAGRAMS

IC, M62439SP

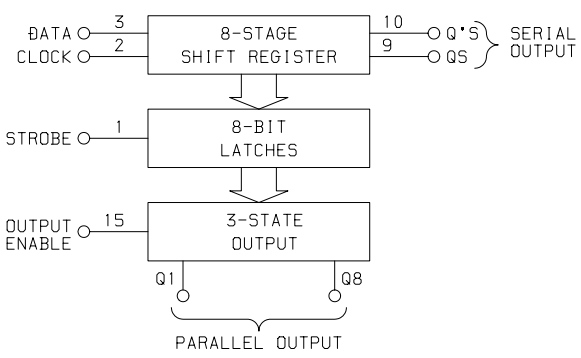


IC, BU4052BC

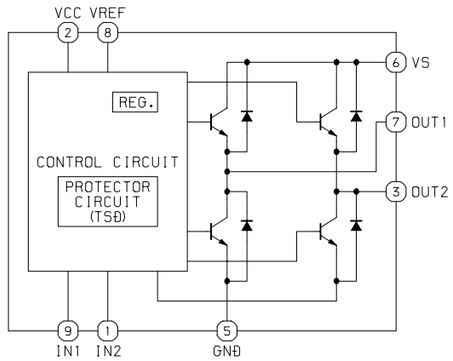


TRUTH TABLE

INHIBIT	A	B	ON SWITCH
L	L	L	X0 Y0
L	H	L	X1 Y1
L	L	H	X2 Y2
L	H	H	X3 Y3
H	X	X	NONE



IC, TA7291S

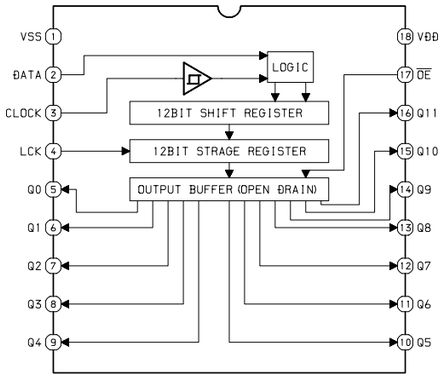


TRUTH TABLE

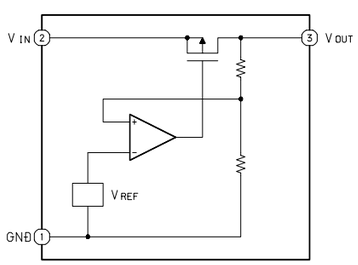
INPUT		OUTPUT		MODE
IN1	IN2	OUT1	OUT2	
0	0	OO	OO	STOP
1	0	H	L	CW/CCW
0	1	L	H	CCW/CW
1	1	L	L	BRAKE

OO :HIGH IMPEDACE
INPUT IS "H" ACITVE

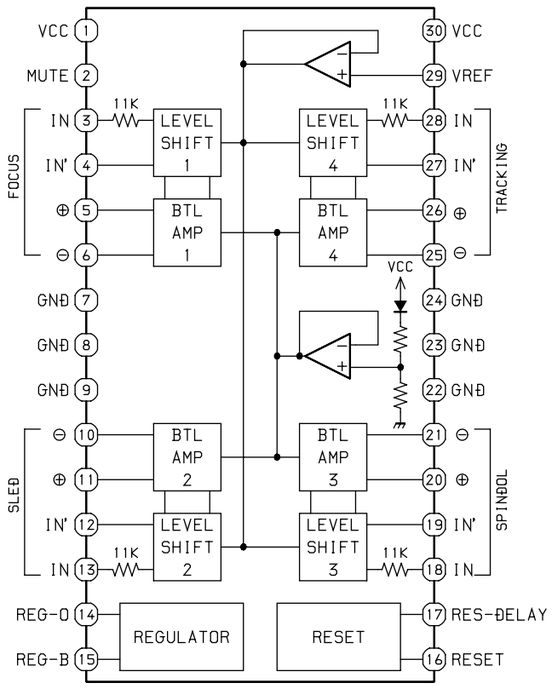
IC, BU2092



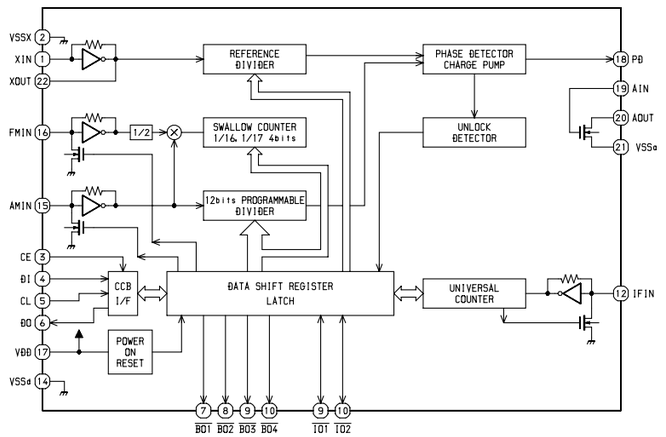
IC, NJU7201L55



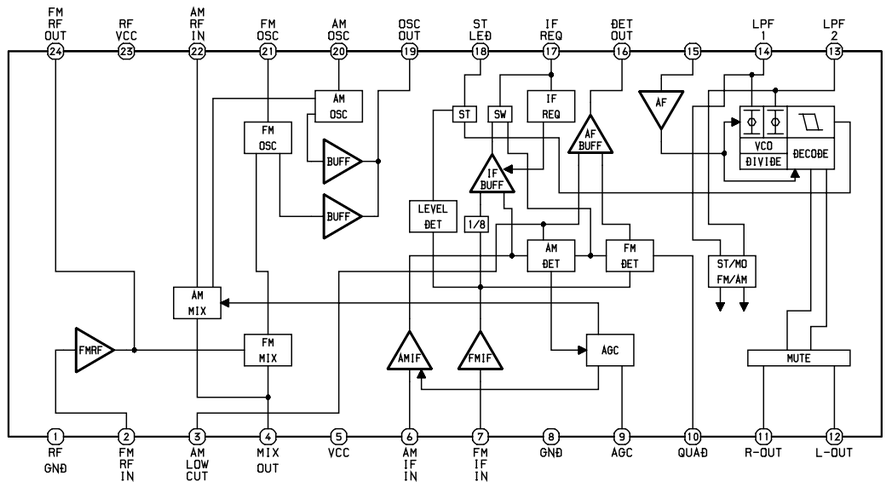
IC, LA6541D



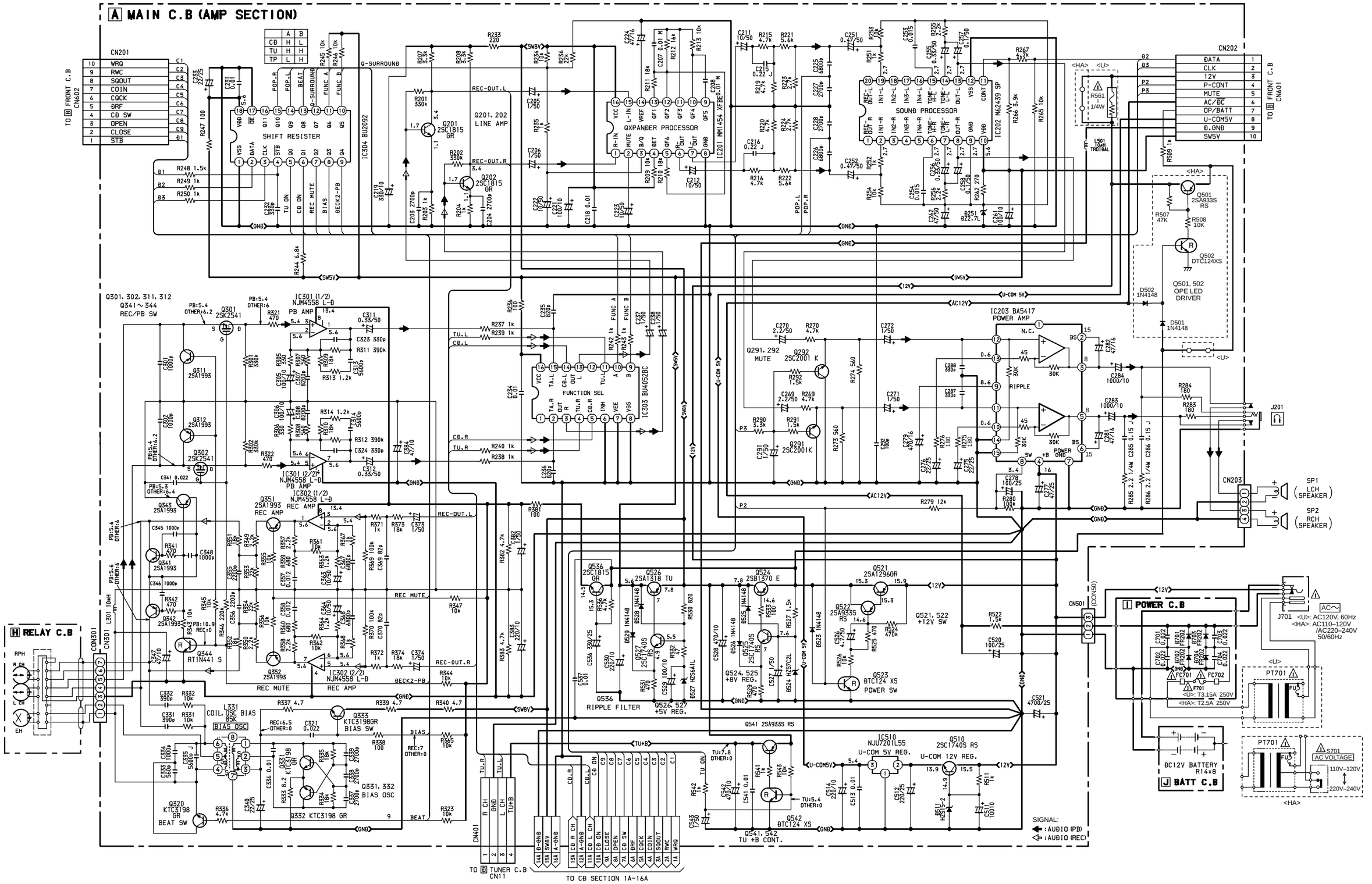
IC, LC72121M



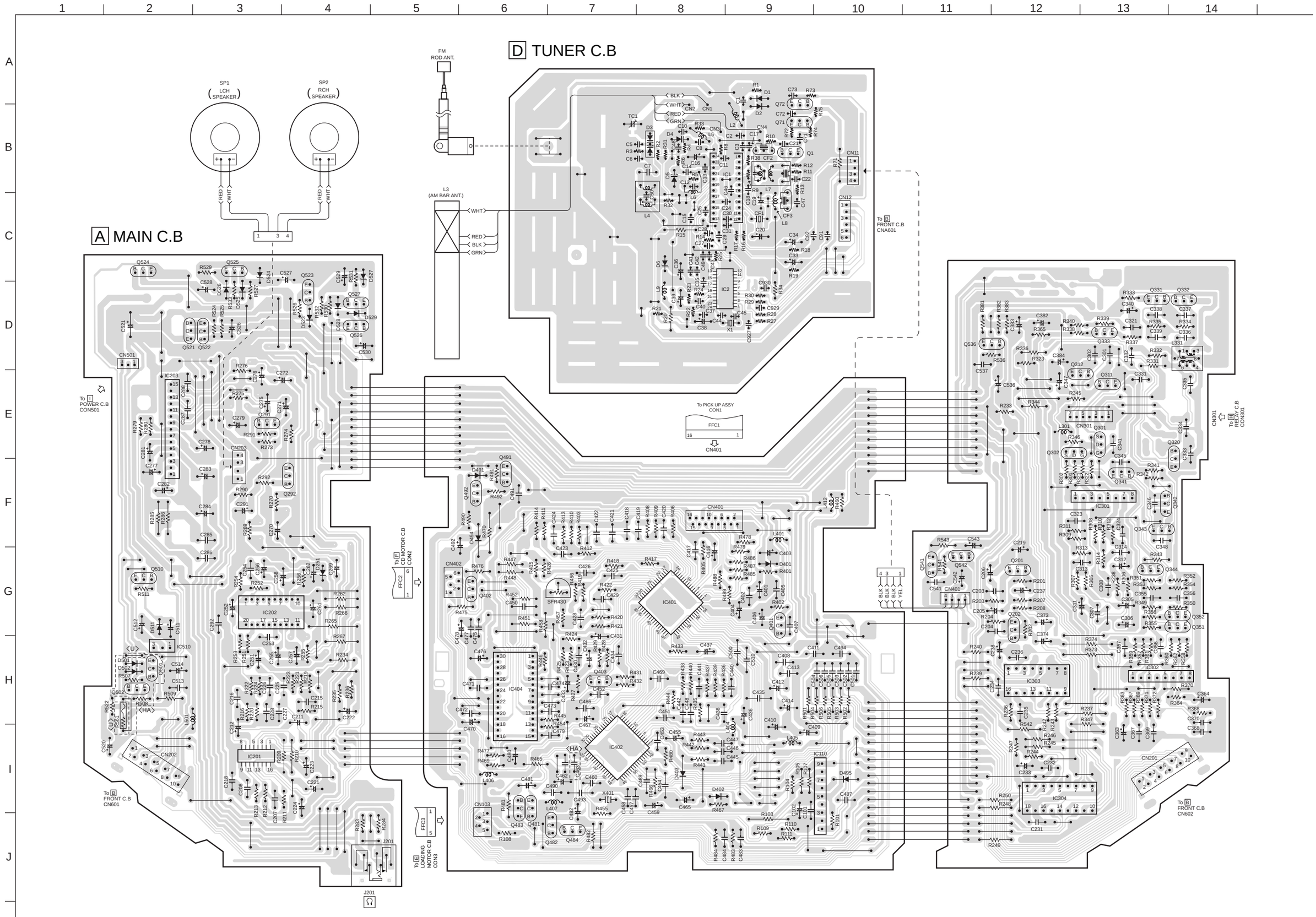
IC, TA2104AN



SCHEMATIC DIAGRAM-1 (MAIN-AMP SECTION)



WIRING-1 (MAIN, TUNER SECTION)



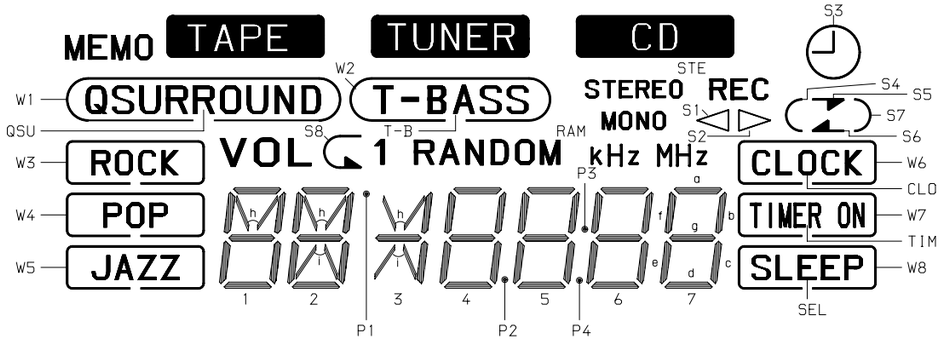
IC DESCRIPTION-1

IC, LC867132V-5L08

Pin No.	Pin Name	I/O	Description
1	–	–	Not connected.
2	O-DATA	O	Data for shift register 2092, PLL LC72121 and IC M62439.
3	O-CLK	O	Clock for shift register 2092 and PLL LC72121.
4	I-AS2	I	Strobe of shift register 2092
5	O-CKSFT	O	Clock shift output for system microprocessor
6	I-HOLD	I	Hold status detection. "H": HOLD
7	I-$\overline{\text{RST}}$	I	Microprocessor reset. ("L" when reset)
8	XT1	I	Connected to 32.768kHz crystal.
9	XT2	O	
10	VSS1	–	GND
11	CF1	I	Connected to 6 MHz ceramic lock.
12	CF2	O	
13	VDD1	–	Microprocessor power supply (µ-com 5 V).
14	I-DSW	I	Detect CD changer state. (AD input)
15	I-KEY0	I	Key AD input.
16	I-CDSW	I	CD tray open/close status detection input (AD)
17	I-ENC1	I	AD value input of rotary encoder outputs A and B
18	I-KEY1	I	KEY AD input.
19	I-CST1	–	Not connected.
20	I-STIND	I	Tuner stereo indicator input.
21	I-TUDO	I	Data input from tuner LC72121.
22	O-CDOPEN	O	CD tray open control output.
23	O-CDCLOSE	O	CD tray close control output.
24	O-CDMUTE	O	CD muting output.
25	O-$\overline{\text{INIT}}$	O	Initial diode matrix detection output.
26	I-DRF	I	CD (DETECT RF) RE level detection input.
27	I-WRQ	I	CD subcode Q standby input.
28	I-RMT	I	Remote input.
29 ~ 40	S0 ~ S11	O	LCD common output.
41	VDD3	–	Microprocessor power supply (µ-com 5 V).
42	VSS3	–	GND
43 ~ 44	S12 ~ S13	O	LCD segment outputs.
45 ~ 60	S16 ~ S31	O	LCD segment outputs.
61	(V3/PL6)	–	Not connected.
62	(V2/PL5)	–	Not connected.
63	V1/PL4	I	DECK mechanism status detection input.
64 ~ 66	COM0 ~ COM2	O	LCD common outputs.
67	–	–	Not connected.
68	VSS2	–	GND
69	VDD2	–	Microprocessor power supply.
70	O-PL2	O	Single DECK & DECK 2 plunger control output.

Pin No.	Pin Name	I/O	Description
71	O-MOT	O	DECK mechanism motor control output.
72	O-PL1	–	Not connected.
73	O-P. CONT	O	Unit power control output.
74	O-MUTE	O	Main muting output.
75	O-RWC/CE	O	CD read/write control output and TU chip enable.
76	O-$\overline{\text{MSTB}}$	O	Strobe of shift register 2092.
77	–	–	Not connected.
78	O-COIN	O	CD command output.
79	I-SQOUT	I	CD subcode Q input.
80	D-CQCK	O	Clock for CD command and subcode.

FL GRID ASSIGNMENT AND ANODE CONNECTION

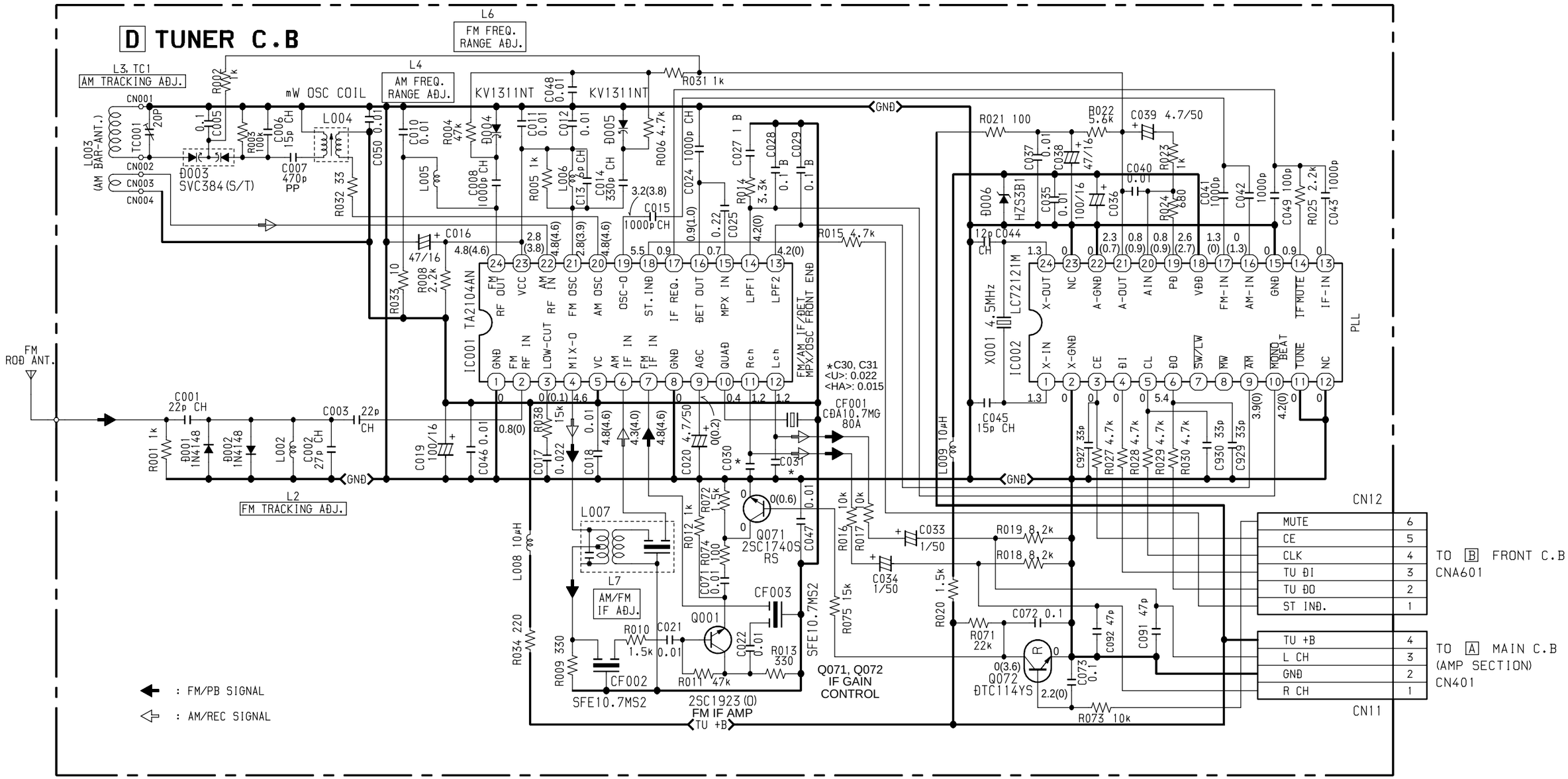


ANODE CONNECTION

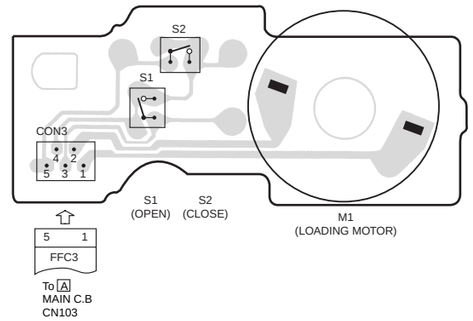
NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
COM1	COM1	——	——	TAPE	W1	ROCK	W3	QSU	1h	1a	2f	2h	2a	VOL	T-B	1	W2
COM2	——	COM2	——	TUNER	MEMO	POP	W4	1f	1g	1b	2e	2g	2b	S8	3h	3b, c	4f
COM3	——	——	COM3	CD	——	JAZZ	W5	1e	1d	1c	2d	2i	2c	P1	3i	3g	4g

NO	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
COM1	4a	4b	RAN	5a	5b	6f	6a	KHz	MHz	7a	S3	W6	CLO	REC	S2	STE
COM2	4g	4c	5f	5g	5c	6e	6g	6b	7f	7g	7b	W7	TIM	S6	S4	MONO
COM3	4d	P2	5E	5d	P3	P4	6d	6c	7E	7d	7c	W8	SLE	S5	S7	S1

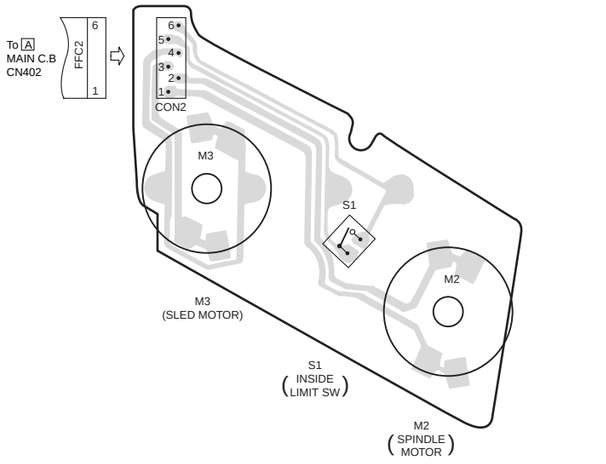
SCHEMATIC DIAGRAM-2 (TUNER SECTION)



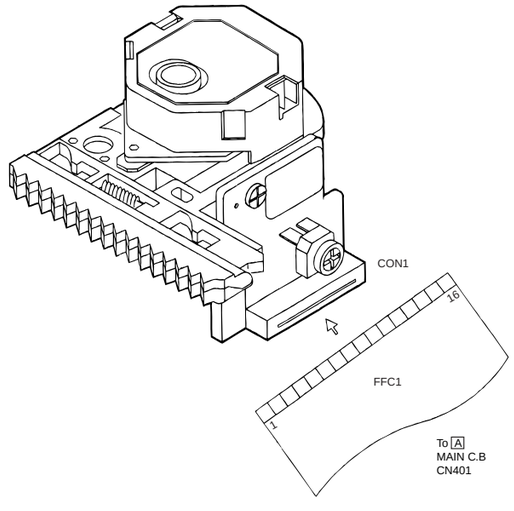
E LOADING MOTOR C.B



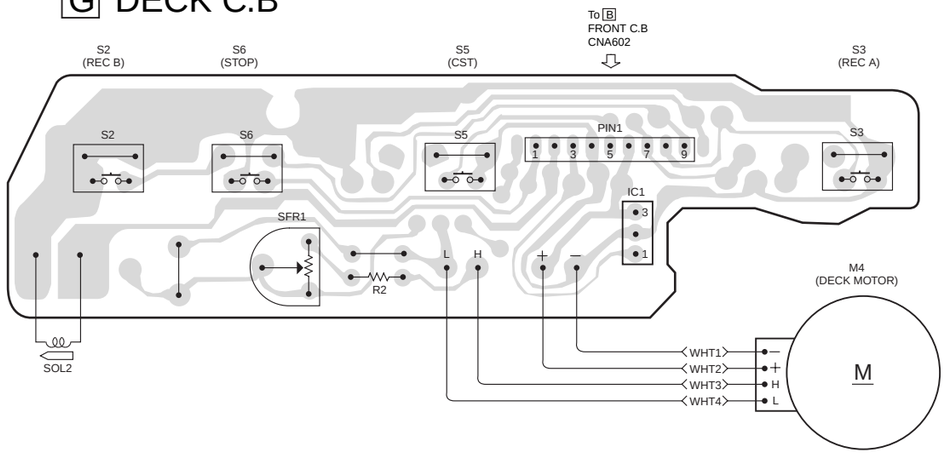
F CD MOTOR C.B



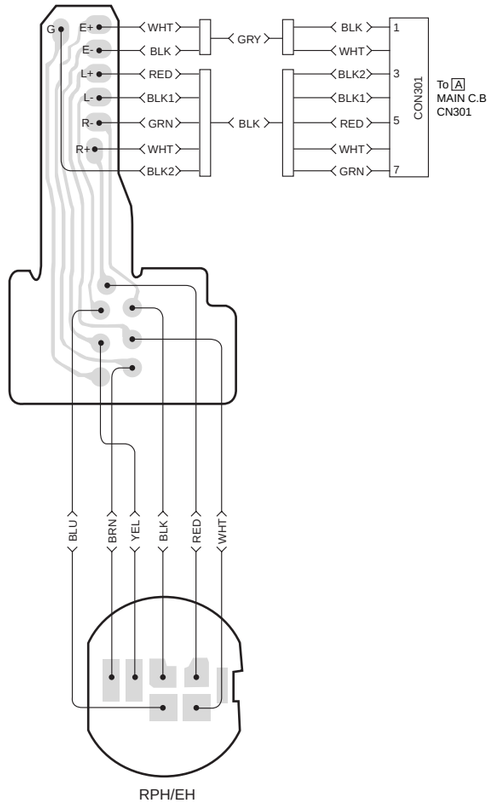
PICK UP ASSY



G DECK C.B

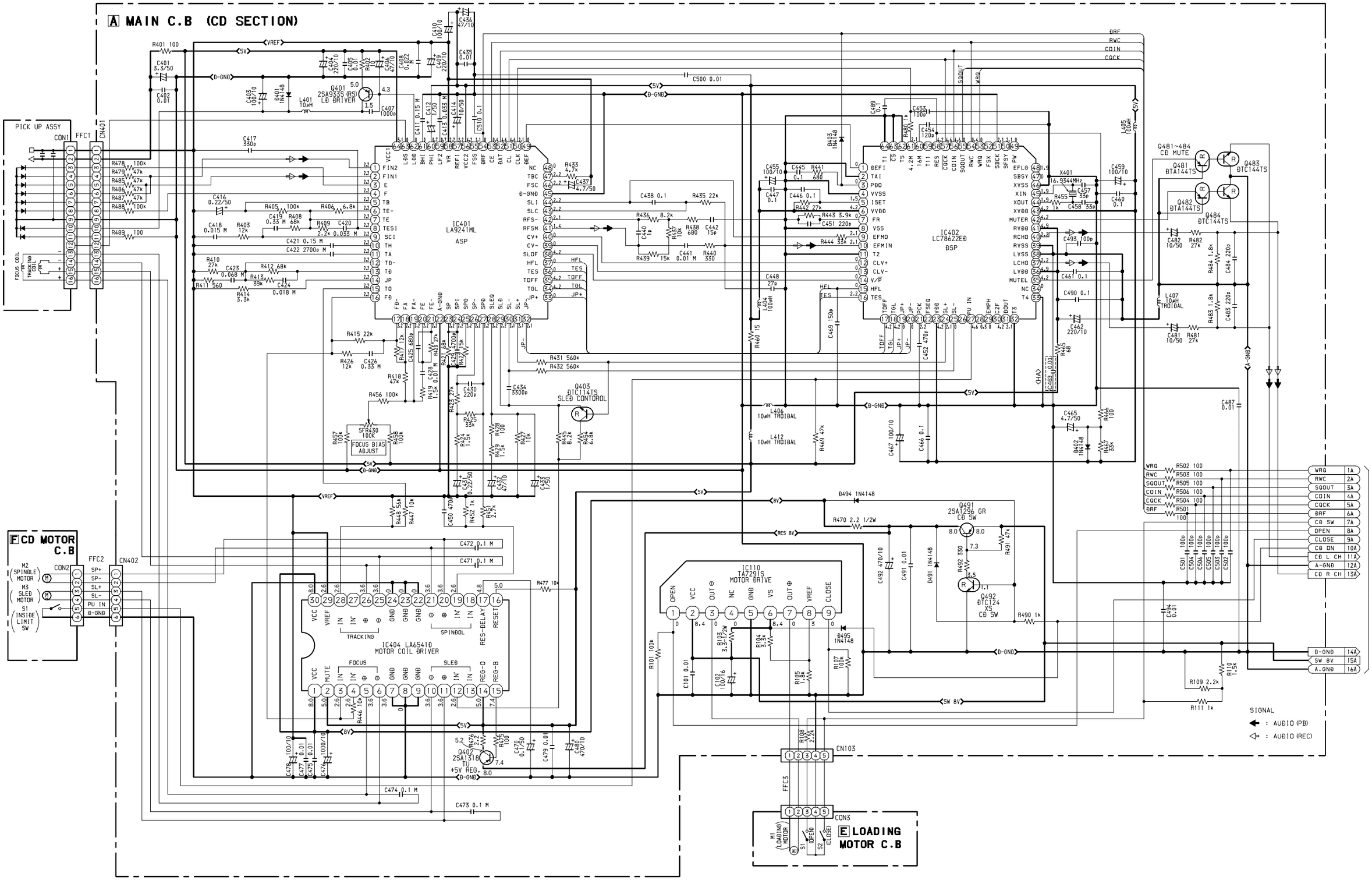


H RELAY C.B



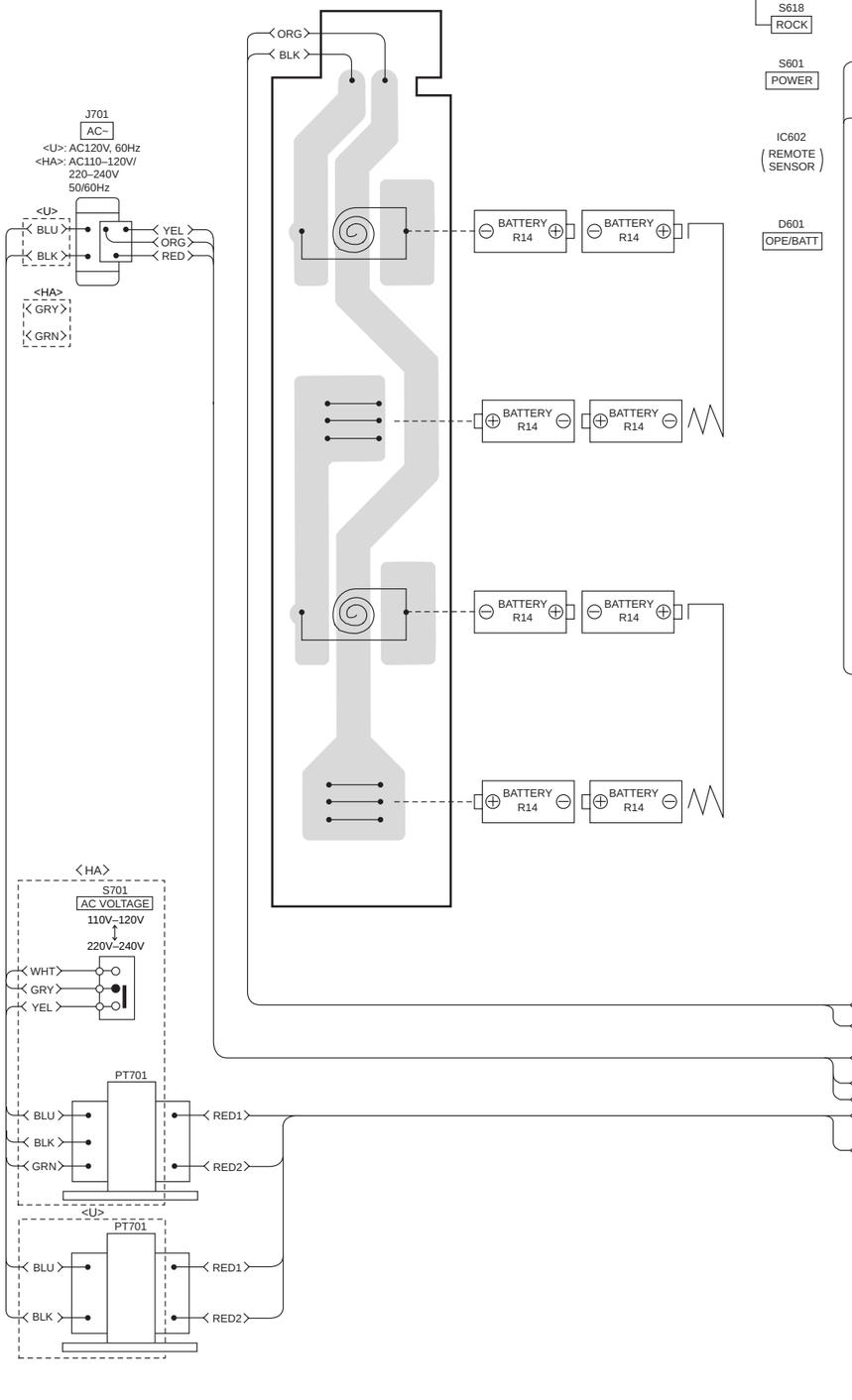
RPH/EH

SCHEMATIC DIAGRAM-3 (MAIN-CD SECTION)

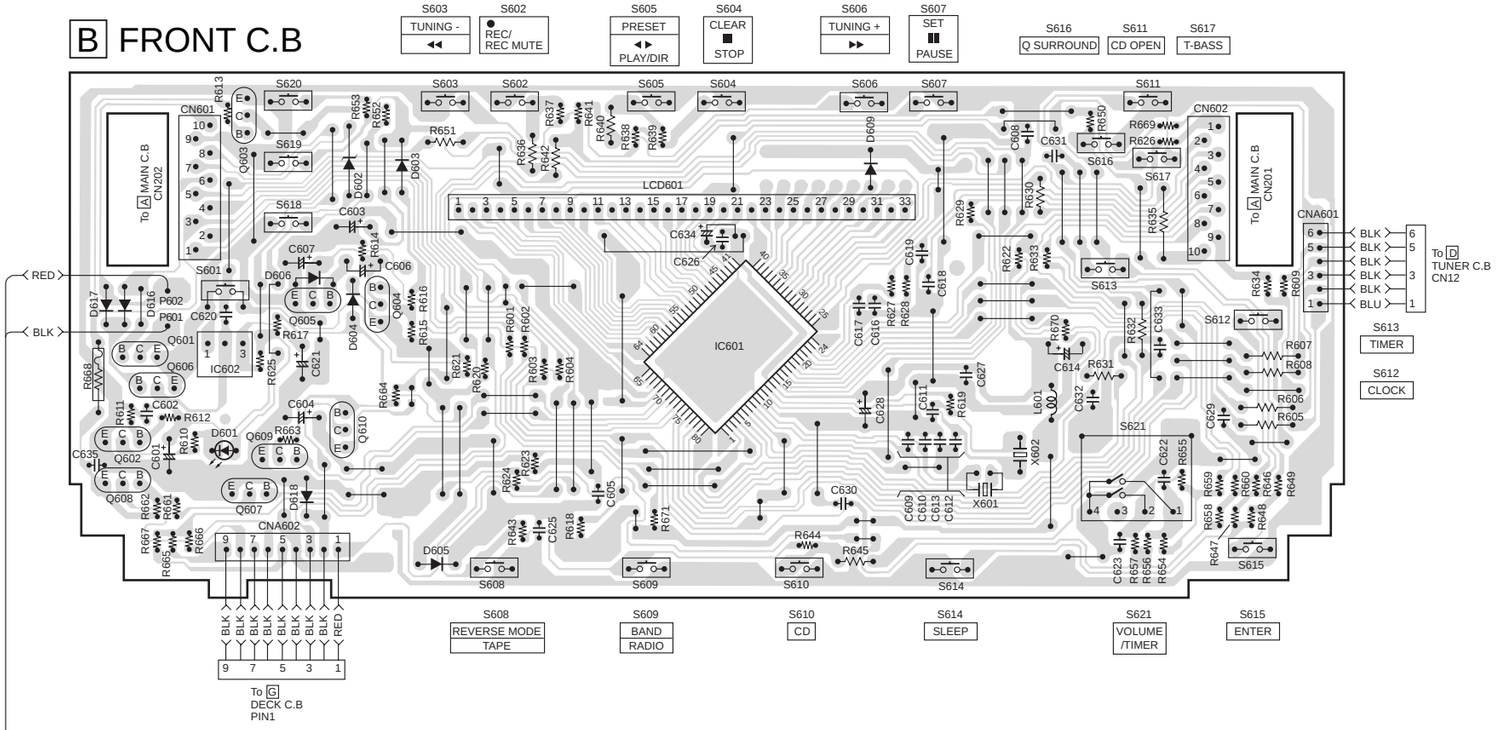


WIRING-3 (FRONT, POWER SECTION)

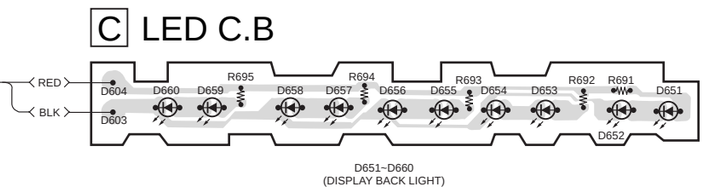
J BATT C.B



B FRONT C.B

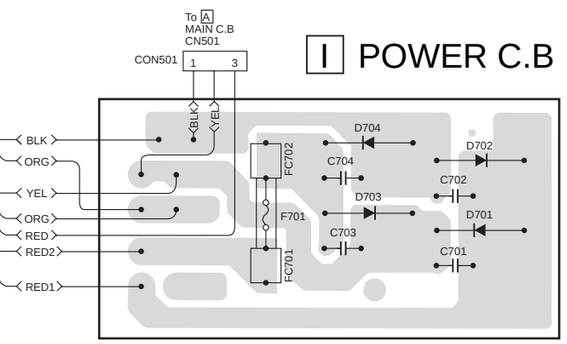


C LED C.B

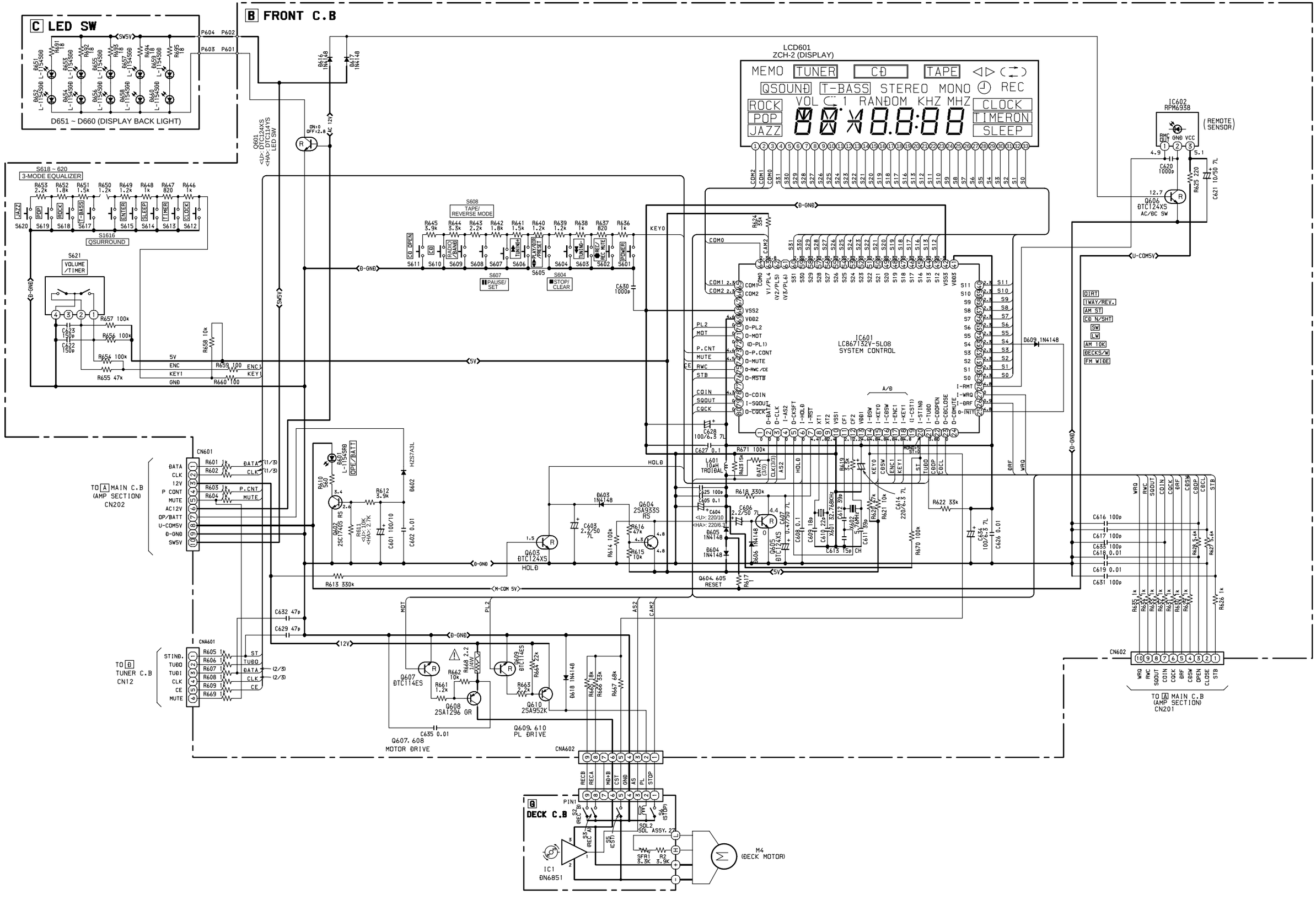


D651~D660
(DISPLAY BACK LIGHT)

I POWER C.B



SCHEMATIC DIAGRAM-4 (FRONT SECTION)



IC DESCRIPTION-2

IC, LC78622E

Pin No.	Pin Name	I/O	Description	
1	DEFI	I	Defect sense signal (DEF) input pin. (Connect to 0V when not used).	
2	TAI	I	For PLL.	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
3	PDO	O		Phase comparator output pin to control external VCO.
4	VVSS	—		GND pin for built-in VCO. Be sure to connect to 0V.
5	ISET	I		Pin to which external resistor adjusting the PD0 output current.
6	VVDD	—		Power supply pin for built-in VCO.
7	FR	I		Pin for VCO frequency range adjustment.
8	VSS	—	Digital system GND. Be sure to connect to 0V.	
9	EFMO	O	For slice level control.	EFM signal output pin.
10	EFMIN	I		EFM signal input pin.
11	T2	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
12, 13	CLV+, CLK–	O	Disc motor control output. Three level output is possible using command.	
14	V/$\overline{P}$	O	Rough servo or phase control automatic selection monitoring output pin. Rough servo at H. Phase servo at L.	
15	HFL	I	Track detect signal input pin. Schmidt input.	
16	TES	I	Tracking error signal input pin. Schmidt input.	
17	TOFF	O	Tracking OFF output pin.	
18	TGL	O	Tracking gain selection output pin. Gain boost at L.	
19, 20	JP+, JP–	O	Track jump control signal output pin. Three level output is possible using command.	
21	PCK	O	EFM data playback clock monitoring pin 4.3218 MHz when phase is locked in.	
22	FSEQ	O	Sync signal detection output pin. H when the sync signal which is detected from EFM signal and thesync signal which is internally generated agree.	
23	VDD	—	Digital system power supply pin.	
24	SL+	O	Moves the sled to outer circumference.	
25	SL–	O	Moves the sled to inner circumference.	
26	—	—	Not connected.	
27	PUIN	I	CD pickup inner switch detection.	
28	—	—	Not connected.	
29	EMPH	O	De-emphasis monitor output pin. De-emphasis disc is being played back at H.	
30	C2F	O	C2 flag output pin.	
31	DOUT	O	DIGITAL OUT output pin. (EIAJ format).	
32, 33	T3, T4	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
34	N.C.	—	Not used. Set the pin to open.	
35	MUTEL	O	L-channel 1-bit DAC.	L-channel mute output pin.
36	LVDD	—		L-channel power supply pin.
37	LCHO	O		L-channel output pin.
38	LVSS	—		L-channel GND. Be sure to connect to 0V.
39	RVSS	—	R-channel 1-bit DAC.	R-channel GND. Be sure to connect to 0V.
40	RCHO	O		R-channel output pin.
41	RVDD	—		R-channel power supply pin.
42	MUTER	O		R-channel mute output pin.

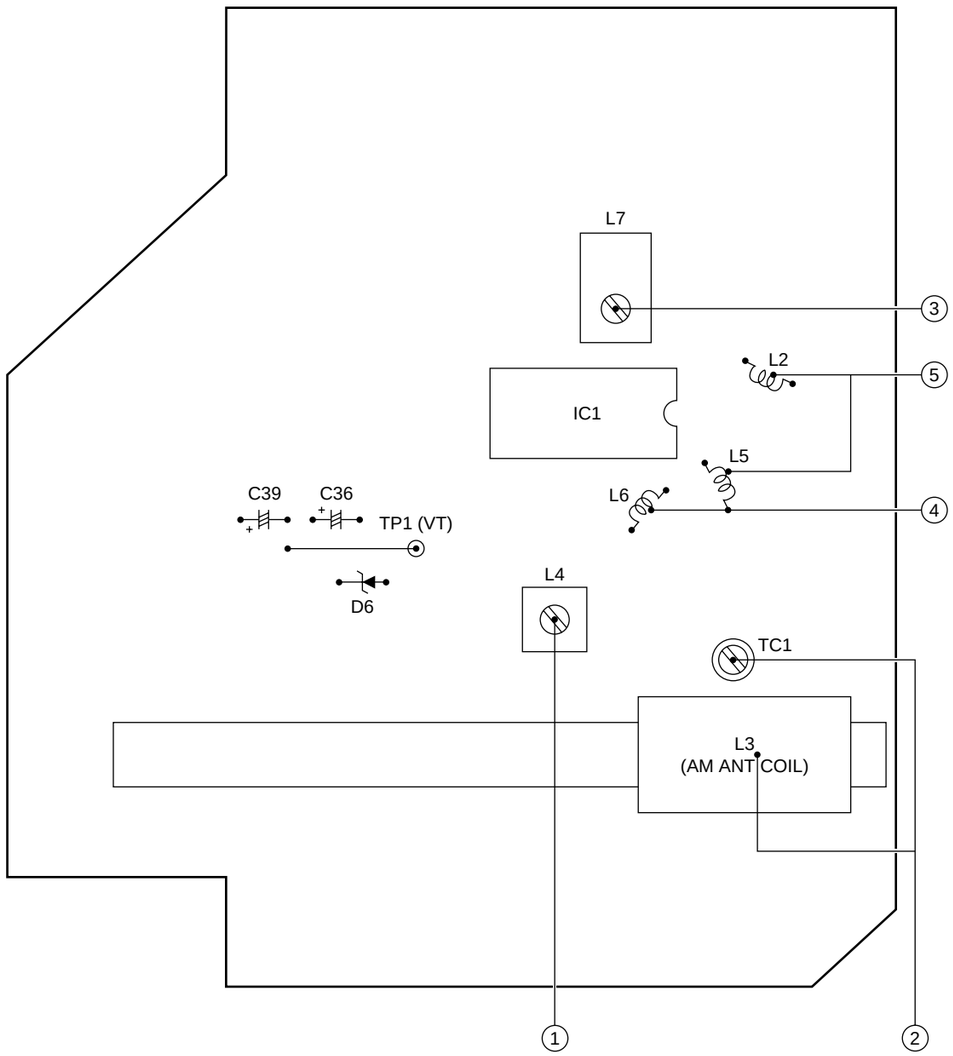
Pin No.	Pin Name	I/O	Description
43	XVDD	—	Crystal oscillator power supply pin.
44	XOUT	O	Pin to which external 16.9344 MHz crystal oscillator is connected.
45	XIN	I	
46	XVSS	—	Crystal oscillator GND pin. Be sure to connect to 0V.
47	SBSY	O	Subcode block sync signal output pin.
48	EFLG	O	C1, C2, single and dual correction monitoring pin.
49	PW	O	Subcode P, Q, R, S, T, U and W output pin.
50	SFSY	O	Subcode frame sync signal output pin. Falls down when subcode enters standby.
51	SBCK	I	Subcode read clock input pin. Schmidt input. (Be sure to connected to 0V when not in use.)
52	FSX	O	Pin outputting the 7.35 kHz sync signal which is generated by dividing frequency of crystal oscillator.
53	WRQ	O	Subcode Q output standby output pin.
54	RWC	I	Read/write control input pin. Schmidt input.
55	SQOUT	O	Subcode Q output pin.
56	COIN	I	Command input pin from microprocessor.
57	$\overline{CQCK}$	I	Command input read clock or subcode read input clock from SQOUT pin
58	$\overline{RES}$	I	LC78622 reset input pin. Set this pin to L once when the main power is turned on.
59	T11	O	Test signal output pin. Use this pin as open (normally L output).
60	16M	O	16.9344 MHz output pin.
61	4.2M	O	4.2336 MHz output pin.
62	T5	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
63	$\overline{CS}$	I	Chip select signal input pin with built-in pull-down resistor. Be sure to connect to 0V while it is not controlling.
64	T1	I	Test signal input pin without built-in pull-down resistor. Be sure to connect to 0V.

IC, LA9241ML

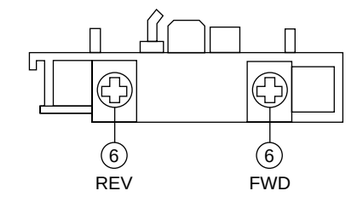
Pin No.	Pin Name	I/O	Description
1	FIN2	I	Pin to which external pickup photo diode is connected. RF signal is created by adding with the FIN1 pin signal. FE signal is created by subtracting from the FIN1 pin signal.
2	FIN1	I	Pin to which external pickup photo diode is connected.
3	E	I	Pin to which external pickup photo diode is connected. TE signal is created by subtracting from the F pin signal.
4	F	I	Pin to which external pickup photo diode is connected.
5	TB	I	DC component of the TE signal is input.
6	TE–	I	Pin to which external resistor setting the TE signal gain is connected between the TE pin.
7	TE	O	TE signal output pin.
8	TESI	I	TES “Track Error Sense” comparator input pin. TE signal is passed through a band-pass filter then input.
9	SCI	I	Shock detection signal input pin.
10	TH	I	Tracking gain time constant setting pin.
11	TA	O	TA amplifier output pin.
12	TD–	I	Pin to which external tracking phase compensation constants are connected between the TD and VR pins.
13	TD	I	Tracking phase compensation setting pin.
14	JP	I	Tracking jump signal (kick pulse) amplitude setting pin.
15	TO	O	Tracking control signal output pin.
16	FD	O	Focusing control signal output pin.
17	FD–	I	Pin to which external focusing phase compensation constants are connected between the FD and FA pins.
18	FA	I	Pin to which external focusing phase compensation constants are connected between the FD– and FA– pins.
19	FA–	I	Pin to which external focusing phase compensation constants are connected between the FA and FE pins.
20	FE	O	FE signal output pin.
21	FE–	I	Pin to which external FE signal gain setting resistor is connected between the FE pin.
22	A-GND	—	Analog signal GND.
23	SP	O	Single ended output of the CV+ and CV– pin input signal.
24	SPI	I	Spindle amp input
25	SPG	I	Pin to which external spindle gain setting resistor in 12 cm mode is connected.
26	SP–	I	Pin to which external spindle phase compensation constants are connected together with SPD pin.
27	SPD	O	Spindle control signal output pin.
28	SLEQ	I	Pin to which external sled phase compensation constants are connected.
29	SLD	O	Sled control signal output pin.
30, 31	SL–, SL+	I	Sled advance signal input pin from microprocessor.
32, 33	JP–, JP+	I	Tracking jump signal input pin from DSP.
34	TGL	I	Tracking gain control signal input from DSP. Low gain when TGL = H.
35	TOFF	I	Tracking off control signal input pin from DSP. Off when TOFF = H.

Pin No.	Pin Name	I/O	Description
36	TES	O	Pin from which TES signal is output to DSP.
37	HFL	O	“High Frequency Level” is used to judge whether the main beam position is on top of bit or on top of mirror.
38	SLOF	I	Sled servo off control input pin.
39, 40	CV–, CV+	I	CLV error signal input pin from DSP.
41	RFSM	O	RF output pin.
42	RFS–	I	RF gain setting and EFM signal 3T compensation constant setting pin together with RFSM pin.
43	SLC	O	“Slice Level Control” is the output pin which controls the RF signal data slice level by DSP.
44	SLI	I	Input pin which control the data slice level by the DSP.
45	D-GND	—	Digital system GND.
46	FSC	O	Output pin to which external focus search smoothing capacitor is connected.
47	TBC	I	“Tracking Balance Control” EF balance variable range setting pin.
48	NC	—	No connection.
49	DEF	O	Disc defect detector output pin.
50	CLK	I	Reference clock input pin. 4.23 MHz of the DSP is input.
51	CL	I	Microprocessor command clock input pin.
52	DAT	I	Microprocessor command data input pin.
53	CE	I	Microprocessor command chip enable input pin.
54	DRF	O	“Detect RF” RF level detector output.
55	FSS	I	“Focus Search Select” focus search mode (± search/+ search) select pin.
56	VCC2	—	Servo system and digital system Vcc pin.
57	REFI	—	Pin to which external bypass capacitor for reference voltage is connected.
58	VR	O	Reference voltage output pin.
59	LF2	I	Disc defect detector time constant setting pin.
60	PH1	I	Pin to which external capacitor for RF signal peak holding is connected.
61	BH1	I	Pin to which external capacitor for RF signal bottom holding is connected.
62	LDD	O	APC circuit output pin.
63	LDS	I	APC circuit input pin.
64	VCC1	—	RF system Vcc pin.

D TUNER C.B (Top View)



DECK R/P/E HEAD



<TUNER SECTION>

1. AM VT Adjustment
   Settings: • Test point: TP1 (VT)
   • Adjustment location: L4
   Method: Set to AM 1710 kHz and adjust L4 so that the test point becomes 6.0 ± 0.04 V.

2. AM Tracking Adjustment
   L3 ..... 600 kHz
   TC1 ..... 1400 kHz

3. AM IF Adjustment
   L7 ..... 450 kHz

4. FM VT Adjustment
   Settngs: • Test point: TP1 (VT)
   • Adjustment location: L6
   Method: Set to FM 108.0 MHz and adjust L6 so that test point becomes 6.0 ± 0.04 V.

5. FM Tracking Adjustment
   L2, L5 .....98.0 MHz

<DECK SECTION>

6. Head Azimuth Adjustment
   Settings: • Test Tape: TTA-320 (TTA-113B, TTC-152)
   • Test point: J201 (PHONES Jack)
   • Adjustment location: Head Azimuth Adjustment Screw
   Method: Playback the 10 kHz signal of test tape and adjust screw so that the output becomes maximum.

PRACTICAL SERVICE FIGURE

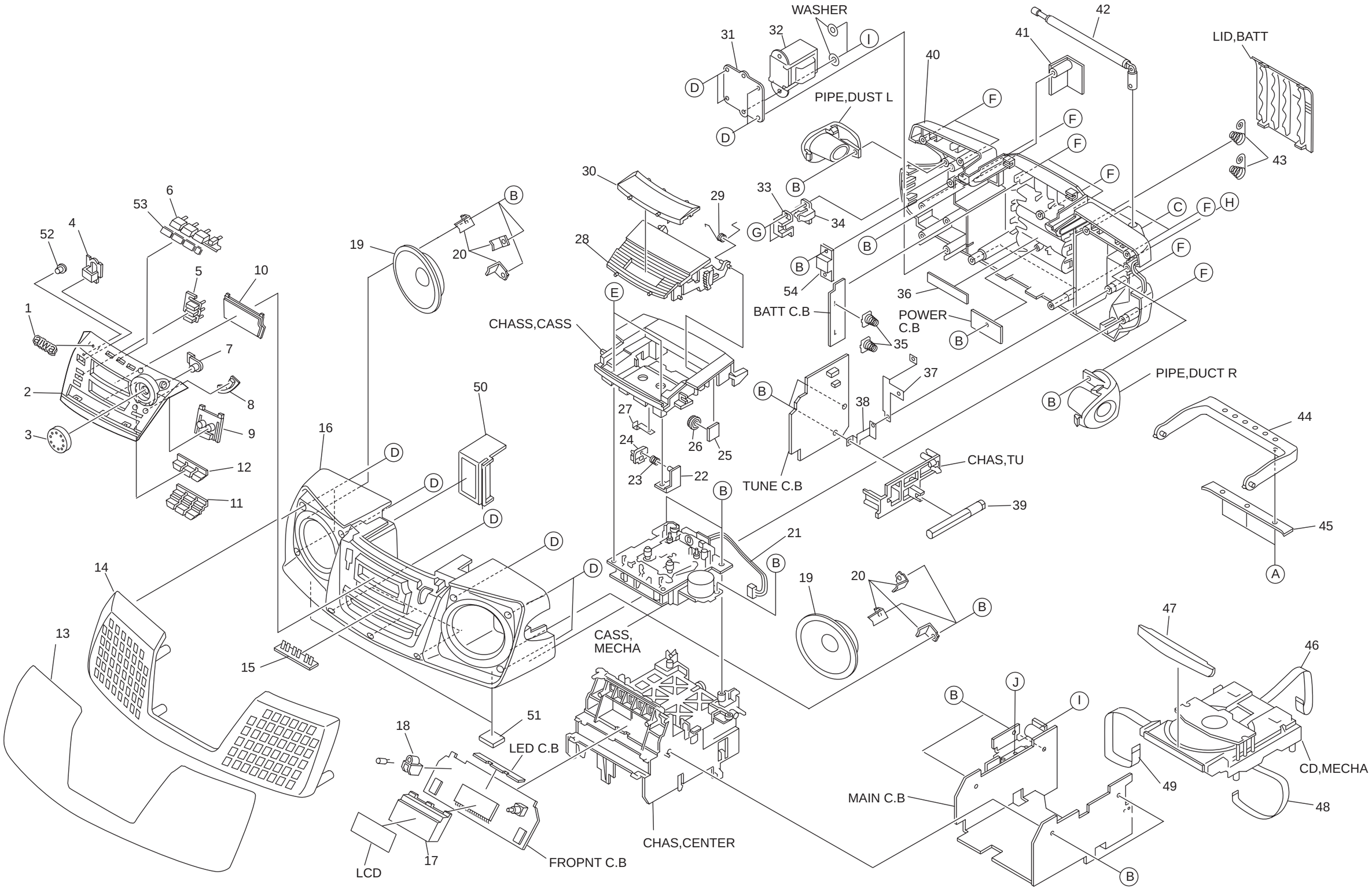
<TUNER SECTION>

<FM SECTION>	
IHF Sensitivity :	Less than 18 dB
(IHF, THD 3%)	(87.5 / 98.0 / 108.0 MHz)
Signal to noise ratio :	More than 52 (w/o Flutter) dB
(Input - 60 dB)	(98.0 MHz)
Distortion :	Less than 3.0%
(Input - 60 dB)	(98.0 MHz)
Stereo separation :	More than 20 dB
	(98.0 MHz)
Intermediate frequency :	10.7 MHz
<AM SECTION>	
Sensitivity :	More than 48 dB
(S/N 10 dB)	(600 kHz)
	More than 46 dB
	(1000 kHz)
	More than 44 dB
	(1400 kHz)
Signal to noise ratio :	More than 30 dB
(Input - 74 dB)	(600/1000/1400 kHz)
Distortion :	Less than 3.0%
(Input - 74 dB)	(1000 kHz)
Intermediate frequency :	450 kHz

<DECK SECTION>

Tape speed :	3000 Hz ± 90 Hz
Wow & flutter :	Less than 0.35%
	(JIS RMS)
Take-up torque :	30 ~ 55 g-cm
	(FWD, PLAY)
F.F & REW torque :	75 ~ 160 g-cm
Back tension :	2 ~ 7 g-cm
	(FWD, REV)
S/N ratio :	More than 40 dB
	(PB, SPOUT, AC, DC)
	More than 40 dB
	(R/PB, SPOUT, AC)
Distortion :	Less than 3.0%
	(PB, 1 kHz)
	Less than 5.0%
	(R/PB, 1 kHz)
Noise level :	Less than 35 mV
	(PB, AC, DC)
	Less than 55 mV
	(R/PB, AC)
Erasing ratio :	More than 40 dB

MECHANICAL EXPLODED VIEW 1/1



MECHANICAL MAIN PARTS LIST

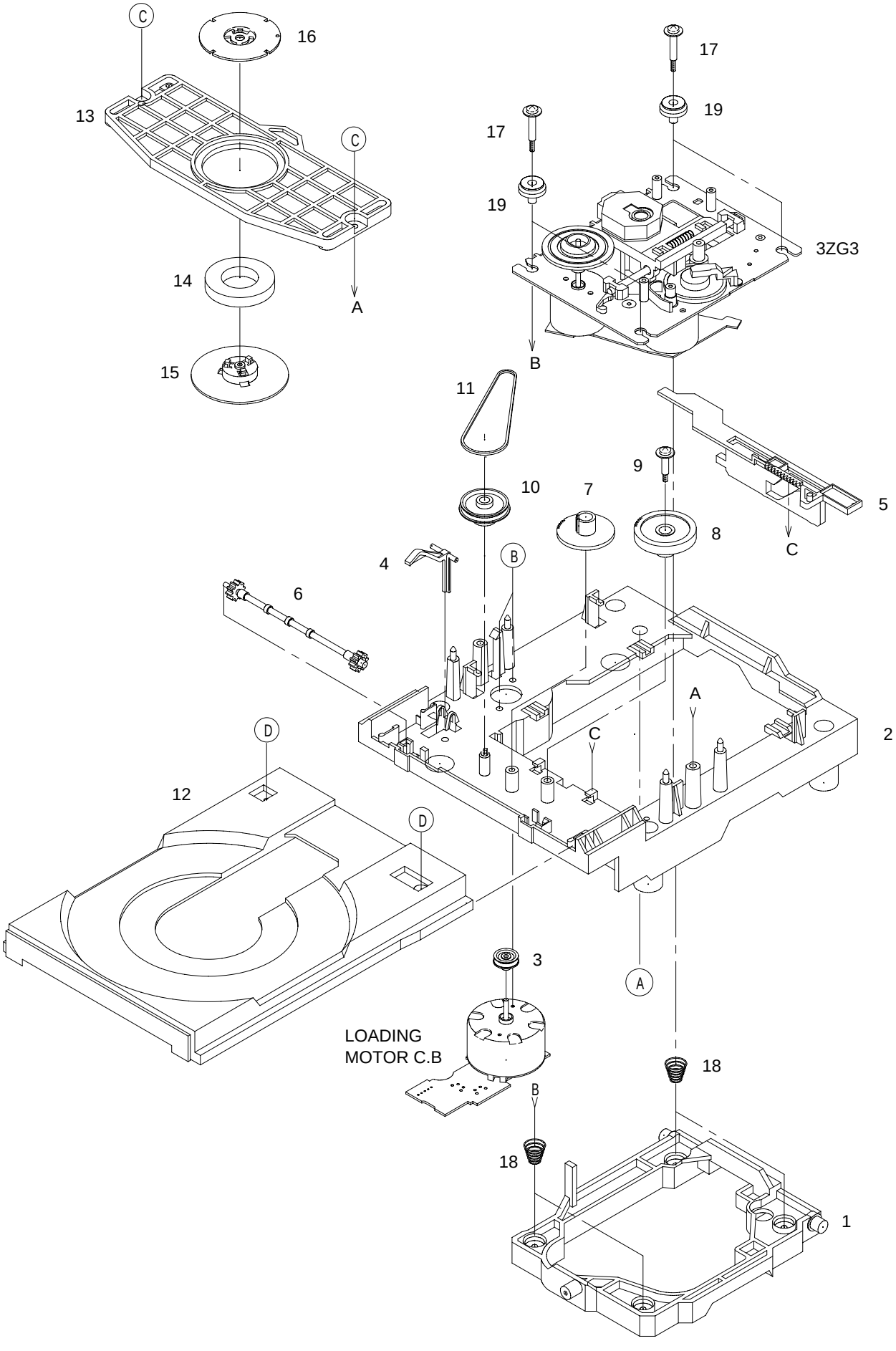
DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	86-CT9-039-010		BADGE,AIWA 30N
2	88-CD5-027-010		PANEL FR EX
3	8Z-CH2-020-010		KNOB,RTRY VOL
4	8Z-CH2-019-010		BTN,POWER
5	8Z-CH2-018-010		BTN,EQ
6	8Z-CH2-205-010		BTN,FUNC BASE
7	8Z-CH2-024-010		BTN,Q
8	8Z-CH2-025-010		BTN,TIMER
9	8Z-CH2-016-010		BTN,OPEN
10	88-CD5-025-010		WINDOW CASS EX
11	8Z-CH2-017-010		BTN,CD 1
12	8Z-CH2-023-010		BTN,CD 2
13	8Z-CH2-027-010		NET,SPKR ASSY
14	8Z-CH2-026-010		GRILLE,
15	8Z-CH2-206-010		BTN,CD BASE
16	8Z-CH2-001-010		CABI,FR
17	8Z-CH2-202-010		HLDR,DISP
18	8Z-CH2-204-010		HLDR,SENS
19	88-CD5-603-010		SPKR,10 7OHM
20	88-CD5-211-010		HLDR,SPKR
21	88-CD5-635-010		CONN ASSY,7P RPH
22	8Z-CH2-211-010		HLDR,LOCK 2N
23	88-CD5-213-010		SPR-C,LOCK
24	82-NF5-229-010		PLATE,LOCK
25	86-CT9-220-110		OIL-DMPR,BRACKET
26	86-CT9-219-110		OIL-DMPR,GEAR
27	8Z-CH2-210-010		SPR-P,CASS
28	8Z-CH2-003-010		BOX,CASS
29	88-CD5-208-010		SPR-T CASS
30	8Z-CH2-005-010		WINDOW,CASS
31	8Z-CH2-209-010		HLDR,TRANS
⚠ 32	88-CD5-646-010		PT,U<U>
⚠ 32	88-CD5-648-010		PT,H<HA>
33	87-A90-086-010		COVER,AC-SOCKET
⚠ 34	87-A60-177-010		JACK,AC U W/SW<U>
⚠ 34	87-A60-178-010		JACK,AC E W/SW<HA>
35	88-CD5-207-010		SPR-C,BATT -
36	88-CD5-041-010		PLATE,BATT
37	8Z-CH2-207-010		HLDR,ANT 1
38	8Z-CH2-208-010		HLDR,ANT 2
39	87-A91-095-010		BAR-ANT,MW FOR 2B(SYN)
40	8Z-CH2-002-010		CABI,REAR
41	88-CD5-040-010		PLATE,COVER
42	86-CT4-616-010		ANT,ROD
43	88-CD5-206-010		SPR-C,BATT LINK
44	8Z-CH2-010-010		HANDL,ARM
45	8Z-CH2-011-010		HANDL,GRIP
46	88-CD5-638-010		FF-CABLE, 16P 1.0 220MM
47	8Z-CH2-012-010		PANEL,CD
48	88-906-181-110		FF-CABLE,6P 1.25
49	88-905-141-110		FF-CABLE, 5P 1.25
50	88-CD5-205-010		HLDR,JOINT
51	86-CT9-223-010		CUSH,FOOT
52	8Z-CH2-022-010		LENS,LED
53	8Z-CH2-015-010		BTN,FUNC
⚠ 54	87-A91-302-010		SW,AC SL 2 2 2 SDKGA40100<HA>
A	87-721-097-410		QT2+3-12 GLD
B	87-751-097-410		SCREW 3X12
C	87-261-097-410		V+3-12
D	87-661-100-410		VFT1+3-16
E	87-651-100-410		VT1+3-16
F	87-651-104-410		VT1+3-30
G	87-352-075-210		VT2+2.6-10
H	87-B10-281-010		BVT2+3-45
I	87-081-511-010		VTT+3-6
J	87-851-095-410		VT2+3-8 GLD

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange		

CD MECHANISM EXPLODED VIEW 1 / 2

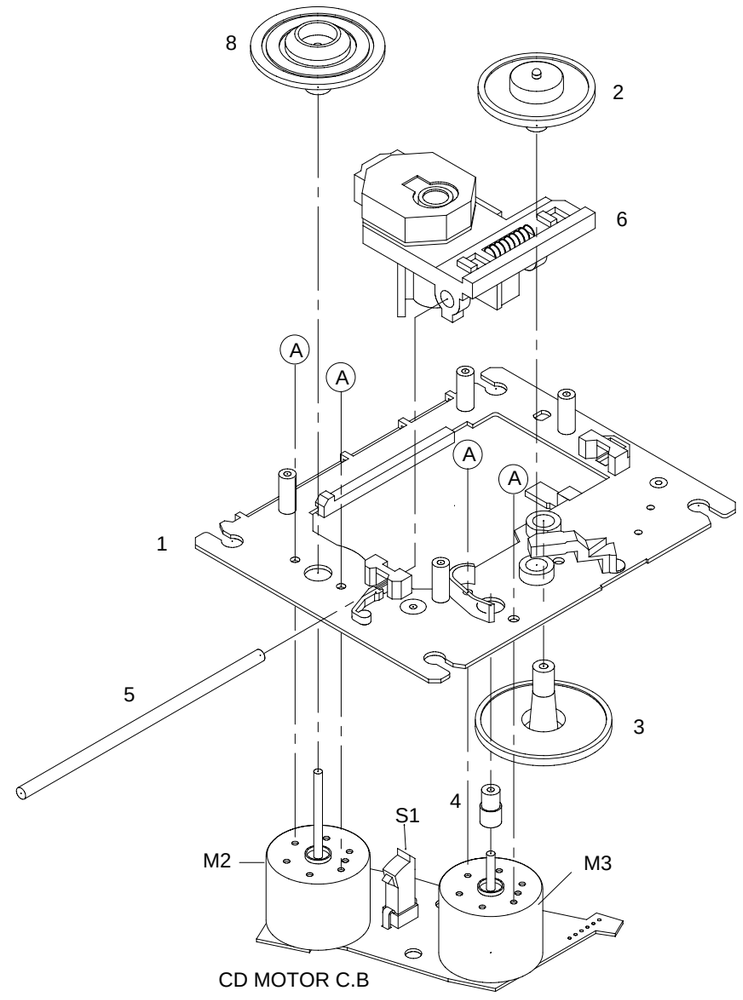


CD MECHANISM PARTS LIST 1 / 2

If can’t understand for Description please kindly refer to “ REFERENCE NAME LIST ”.

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	83-ZG3-224-119	1B	HLDR,M2
2	83-ZG3-228-21K	1C	CHAS,L6
3	83-ZG3-208-01K	0E	PULLEY,MOTOR
4	83-ZG3-213-01K	0E	LVR,SW
5	83-ZG3-209-01K	1A	CAM,SLIDE
6	83-ZG3-207-01K	0E	GEAR,TRAY
7	83-ZG3-204-01K	0E	GEAR,C
8	83-ZG3-205-01K	0E	GEAR,D
9	83-ZG3-217-019	0E	S-SCREW,GEAR D
10	83-ZG3-220-11K	0E	GEAR,PULLEY 2
11	83-ZG3-214-019	0E	BELT,L
12	83-ZG3-229-01K	1C	TRAY,CD 2
13	83-ZG3-210-01K	1B	HLDR,CHUCK
14	83-ZG3-602-010	1A	RING,MAG
15	83-ZG3-212-01K	0E	CAP,DISC
16	83-ZG3-211-01K	0E	PLATE,DISC
17	81-ZG1-254-019	0E	S-SCEW,MECH HLDR
18	83-ZG3-216-019	0E	SPR-C,L
19	80-CD3-214-019	0E	CUSH CD A
A	87-067-945-119	0E	VFT2+3-12(F10)
B	87-251-071-119	0E	U+2.6-4
C	87-512-074-219	0E	VFT2+2.6-8
D	87-352-075-219	0E	VT2+2.6-10

CD MECHANISM EXPLODED VIEW 2 / 2

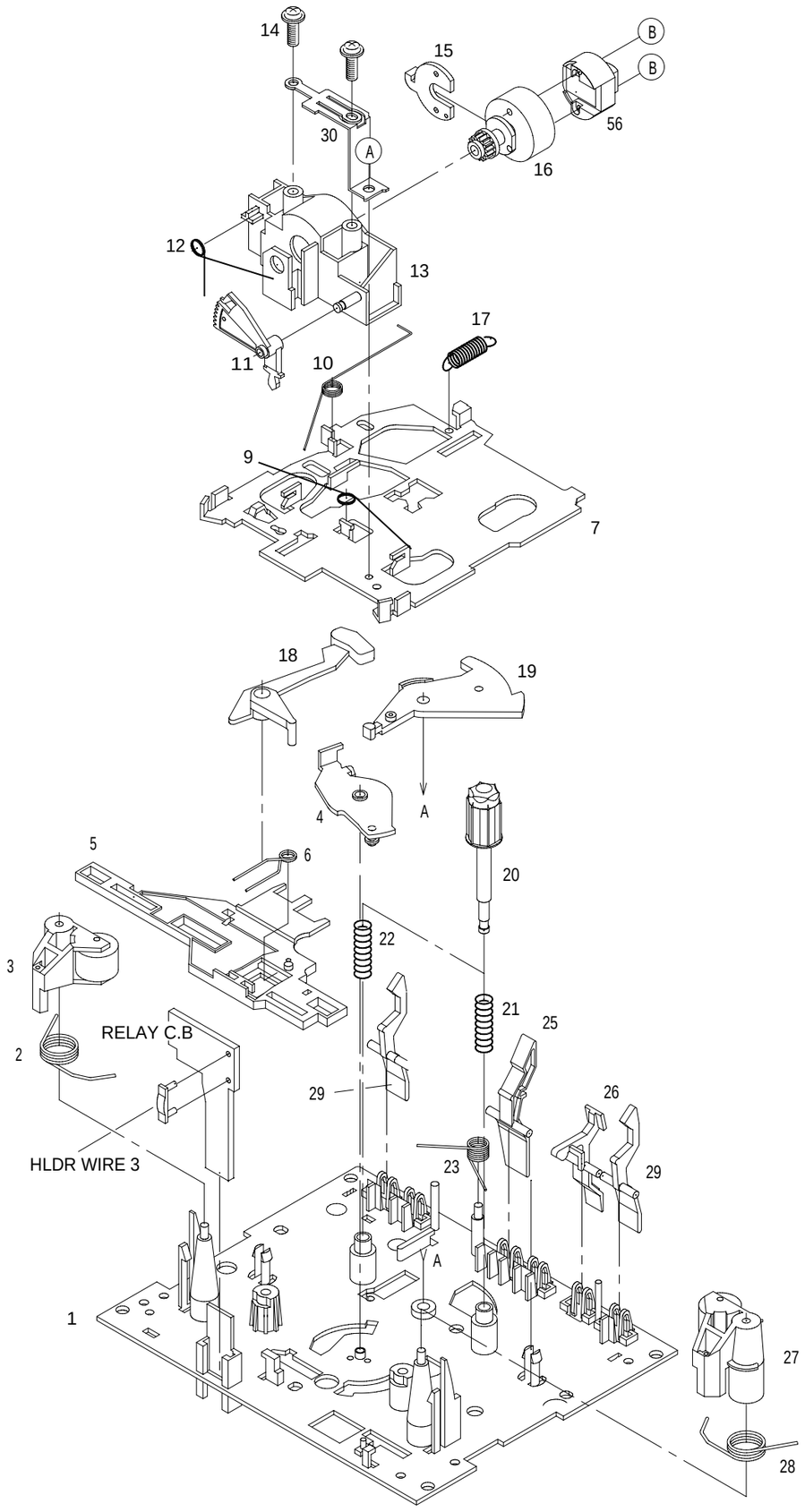


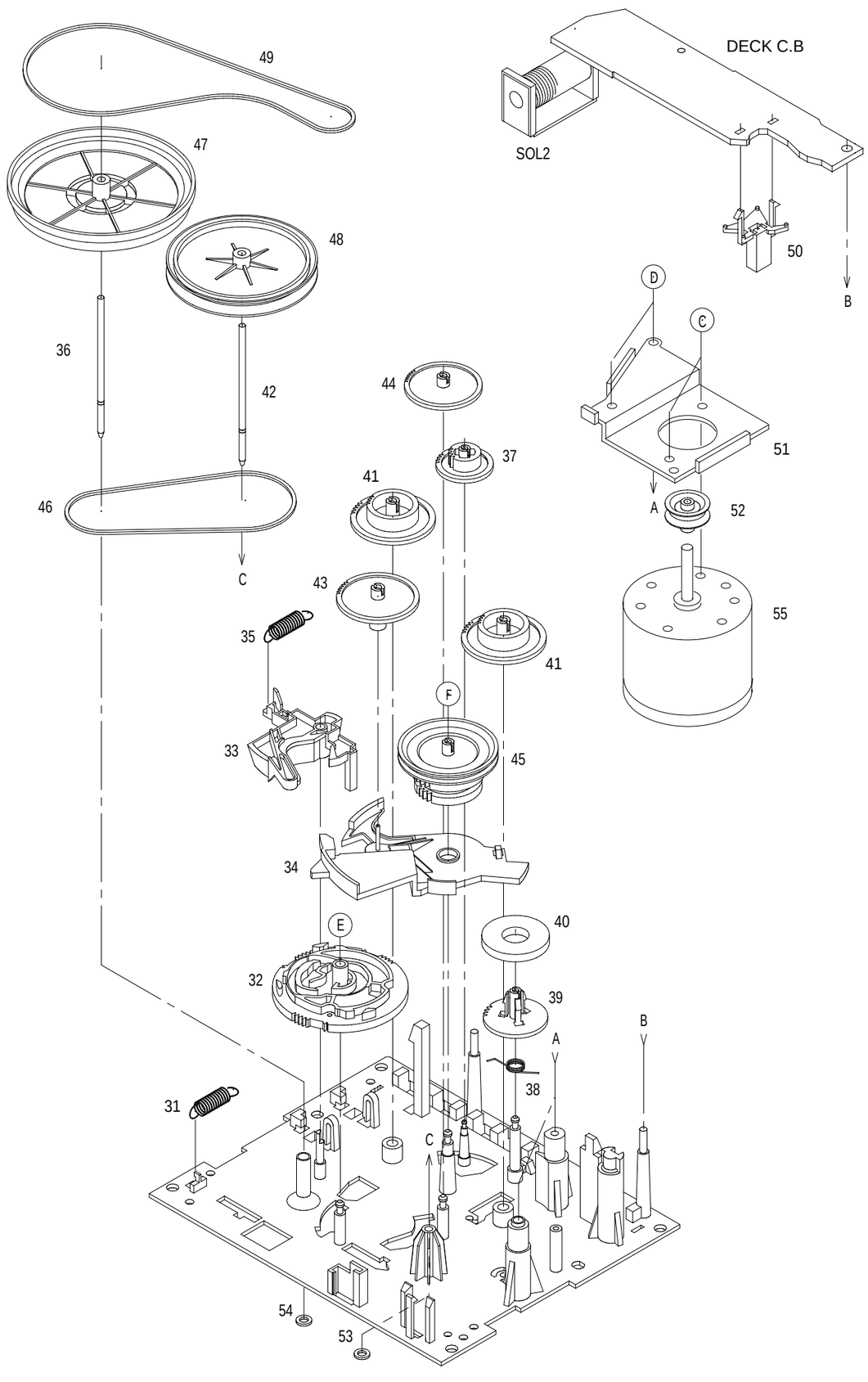
CD MECHANISM PARTS LIST 2 / 2

If can’t understand for Description please kindly refer to “ REFERENCE NAME LIST ”.

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	83-ZG2-202-71K	1C	O-SERT S ASSY,S
2	83-ZG2-204-419	0E	GEAR,A
3	83-ZG2-205-219	0E	GEAR,B
4	83-ZG2-220-01K	0E	GEAR MOTOR 2
5	83-ZG2-240-019	1A	SHAFT,SLIDE 3
6	87-070-445-010	2C	PICK-UP,KSS-213B
8	83-ZG2-233-019	1B	TURN TABLE,A5
A	87-261-032-219	0E	SCREW V+2-3

TAPE MECHANISM EXPLODED VIEW 1/1



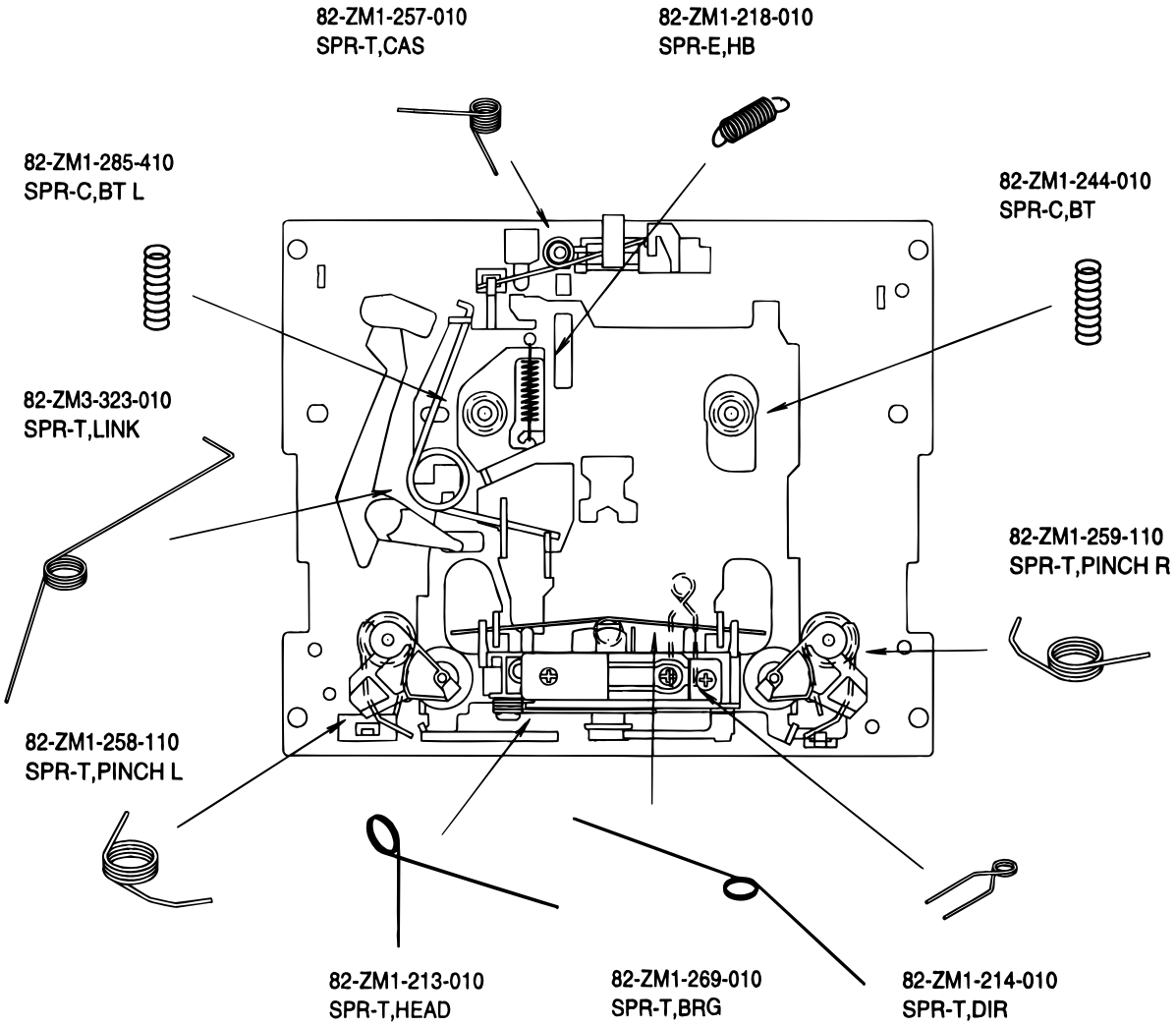


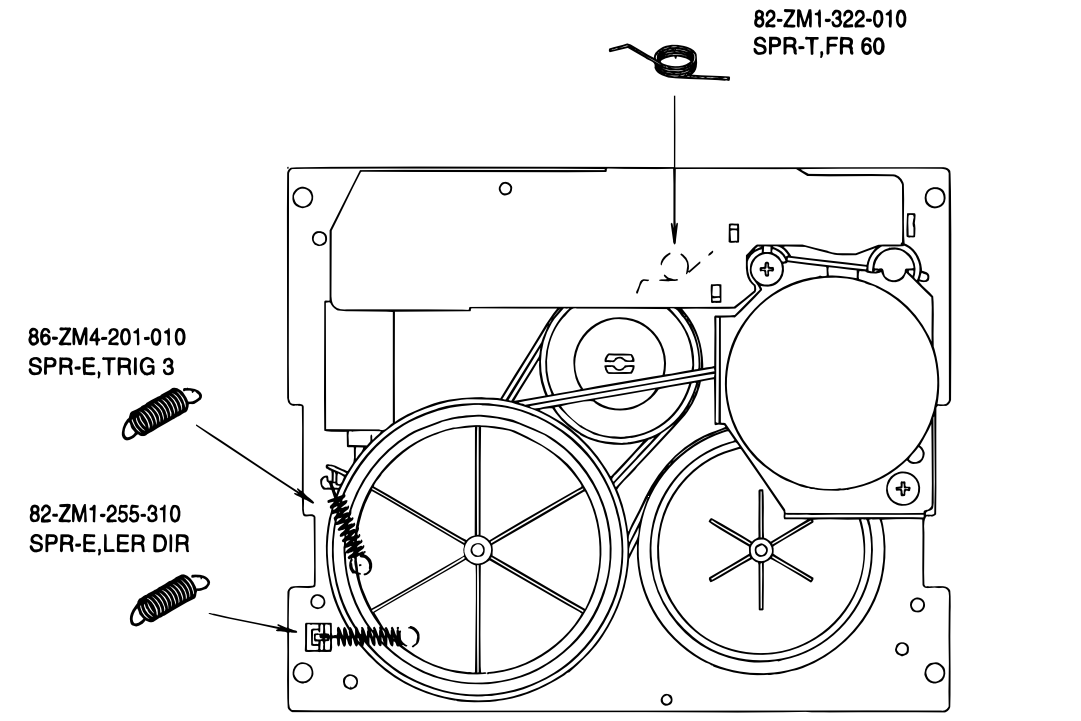
TAPE MECHANISM PARTS LIST 1 / 1

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	82-ZM1-327-210	1D	CHAS ASSY,RN
2	82-ZM1-258-010	0E	SPR-T,PINCH L
3	82-ZM1-341-010	1A	LVR ASSY,PINCH L 2
4	82-ZM1-295-310	0E	PLATE ASSY,LINK
5	82-ZM1-266-110	0E	LVR,DIR
6	82-ZM1-214-010	0E	SPR-T,DIR
7	82-ZM1-206-810	1A	CHAS,HEAD
9	82-ZM1-269-210	0E	SPR-T,BRG
10	82-ZM3-323-010	0E	SPR-T,LINK 3
11	82-ZM1-210-110	0E	GEAR,H T
12	82-ZM1-213-010	0E	SPR-T,HEAD
13	82-ZM1-207-610	0E	GUIDE,TAPE
14	82-ZM1-283-310	0E	S-SCREW,AZIMUTH
15	82-ZM1-314-119	0E	PLATE,HEAD
16	82-ZM1-208-110	0E	HLDR,HEAD
17	82-ZM1-218-010	0E	SPR-E,HB
18	82-ZM1-263-110	0E	LVR,EJECT
19	82-ZM1-222-210	0E	LVR,PLAY
20	82-ZM1-217-310	0E	REEL TABLE
21	82-ZM1-244-510	0E	SPR-C,BT
22	82-ZM1-285-410	0E	SPR-C,BT L
23	82-ZM1-257-010	0E	SPR-T,CAS
25	82-ZM1-242-010	0E	LVR,CAS
26	82-ZM1-243-010	0E	LVR,STOP
27	82-ZM1-344-010	1A	LVR ASSY,PINCH R
28	82-ZM1-259-110	0E	SPR-T,PINCH R
29	82-ZM1-240-110	0E	LVR,REC
30	82-ZM1-298-010	0E	SPR-P,EARTH
31	82-ZM1-255-310	0E	SPR-E,LVR DIR
32	82-ZM1-221-110	0E	GEAR,CAM
33	82-ZM1-227-210	0E	LVR,TRIG
34	82-ZM1-224-410	0E	LVR,FR
35	86-ZM4-201-010	0E	SPR-E,TRIG 3
36	82-ZM1-239-010	0E	CAPSTAN 2.2-41.7
37	82-ZM1-223-010	0E	GEAR,PLAY
38	82-ZM1-322-010	0E	SPR-T,FR 60
39	82-ZM1-220-210	0E	GEAR,IDLER
40	82-ZM3-616-010	0E	RING MAGNET 4
41	82-ZM1-216-310	0E	GEAR,REEL
42	82-ZM1-236-010	0E	CAPSTAN,2-41.5
43	82-ZM1-225-010	0E	GEAR,FR
44	82-ZM1-226-010	0E	GEAR,REW
45	82-ZM3-333-210	1B	SLIP DISK ASSY 2
46	82-ZM1-338-010	0E	BELT,FR 4
47	82-ZM1-349-010	1B	FLY-WHL,RH
48	82-ZM1-348-010	1B	FLY-WHL,LW
49	82-ZM1-351-010	--	BELT,MAIN R7
50	82-ZM1-245-210	0E	HLDR,IC
51	82-ZM1-350-010	0E	HOLDR,MOTOR R7
52	82-ZM1-247-110	0E	PULLEY,MOTOR
53	82-ZM1-288-010	0E	SH,1.63-3.2-0.5 SLT
54	80-ZM6-243-010	0E	SH,1.75-3.6-0.5 SLT
55	87-A90-343-010	1H	MOT,SHU2R 70(M1)
56	87-A90-772-110	2A	HEAD,RPH KC9142(RPH)
A	82-ZM1-315-010	0E	S-SCREW,GUIDE TAPE
B	80-ZM6-207-010	0E	V+1.6-7
C	87-251-070-410	0E	U+2.6-3
D	87-741-073-410	0E	UT2+2.6-6 GLD
E	87-B10-008-010	0E	PW,2.15-6.8-0.4 SLT
F	82-ZM3-334-010	0E	PW,2.16-6-0.4

SPRING APPLICATION POSITION





サービス技術ニュース	
番号	連絡内容
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アイワ株式会社 〒110-8710 東京都台東区池之端1-2-11 ☎03(3827)3111 （代表）
AIWA CO.,LTD. 2–11, IKENOHATA 1–CHOME, TAITO-KU, TOKYO 110-8710, JAPAN TEL:03 (3827) 3111

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